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GEO. GILLETT THOMAS, M.D.

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NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } **Editors.**

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ORIGINAL COMMUNICATIONS.

ABORTION OF FŒTUSES RETAINED IN THE UTERUS SEVEN MONTHS.

By E. J. Kempf, M.D., Jasper, Indiana.

March 25, 1890, Mrs. A. K——— consulted me at my office on account of her protracted pregnancy. She seemed cheerful, well-nourished and in apparent good health.

During the latter part of April, 1889, she missed her monthly flow. She did not have it during the following May, June and July. She was troubled with morning sickness during this time. Her abdomen became larger and her breasts commenced to undergo a change. The woman considered herself pregnant; and having previously borne seven children, she thought herself somewhat experienced in such matters. Feeling as well as in former pregnancies, she consulted no one in regard to her condition.

During August of 1889, she assisted in moving the furniture into their new home, and she slipped and fell down. The next day she noticed a show of her menses, which disappeared after twelve hours. In September, October, November, December, January and February her monthlies came on regularly, generally about the twenty-fifth of the month, always accompanied by pains in the back. The menses were scant, at first red and towards last white. Pains accompanied these flows and were most severe in the back.

She never felt "life" or fœtal movements, nor did her abdomen increase in size, and her breasts became limp and smaller. The confinement that she had anxiously been awaiting for two months seemed further way than ever. She consulted a midwife, who advised her to see me about her condition.

Of course, the question was, Is the woman pregnant or not?

The histoiy that she had given me was negative. The regular menstruation during the latter seven months, the want of fœtal movements, the condition of the breasts and the stationary condition of the abdomen were against pregnancy. The case could only be cleared up by an examination, to which the woman readily consented.

Accordingly the patient was placed on my gynæcological chair and I proceeded to make a vaginal examination. The vulva and vagina presented no change from a normal condition. The womb was enlarged to the size of about a cocoanut. It was not very movable, and it seemed a good deal lower than a normal uterus should have been. It felt somewhat elastic, and the mucous membrane covering the mouth of the uterus was softened. The neck was directed downwards and backwards and was very long, as if it was on the stretch.

The breasts showed nothing indicating a pregnancy.

The hypogastric region enlarge and flattened, did not bulge forward as in pregnancy. A small rounded tumor, about the size of a cocoanut, could be felt on abdominal palpation. No fœtal movements, no fœtal heart-beat, no uterine or placental soufflé, no uterine contraction, no ballottement could be made out. I could discover no diseased condition around the womb, such as pelvic hardness, tenderness, soreness or a swelling. The woman was constipated. The urine was free from albumen and sugar; it was acid and somewhat clouded. The tongue was coated. Except that she was worried about her condition, the woman was in a healthy condition of body and of mind.

I frankly told the woman that I was not certain what was the matter with her. That she was not in the latter stages of a pregnancy on the one hand, and that her uterus was not in a normal condition on the other, was, of course, apparent. I told her that I suspected that her uterus contained either a blighted fœtus or a tumor of some kind. But as I was not positive, and as her condition demanded no active interference, I advised her to wait for developments. In the meantime I directed her to take a pill of aloin 1-5 and strychnia 1-30 three times a day and a hot footbath every night.

One week afterward I was called to the woman's home. She informed me that the pills had caused active purgation, and that she had had very severe pains during the night in her back and in her abdomen. At the present time she had no pains and there was no vaginal discharge.

Upon making a vaginal examination I found the uterus dilated to the size of about a dollar, and a bag of water bulging from it. I informed the patient that her womb was throwing off something, and that everything was as it ought to be. After two hours she called my attention to the fact that something had escaped from her. I found it to be a bag of a peculiar muddy color filled with water in which floated something. At the placental site the chorion—for such it was, of course—it had the appearance of stale meat. Cutting open the bag I found the waters of the amnios thin and watery. In it were contained two shriveled fœtuses, dried up, and looking like two little yellow flattened mummies. One of them was about three and a half and the other three inches long. Both were spotted all over with pin-head grayish spots, which resembled little points of calcification. The umbilical cords were joined about two inches from the umbilical insertions, and as one cord entered what I supposed was a placenta. This joined umbilical cord, looked like a small gut filled with fluid. The two umbllical cords were mere strings. The placenta, or rather what I supposed was a placenta common to both fœtuses, resembled cotyledons of tallow, and in a high state of dessication. The heads of both fœtuses were flattened and had only a semblance of heads, the abdomens were hollow, the chests collapsed, exhibiting the form of the ribs. The skin had a ruddy color. The fœtuses, and, in fact, the whole thing had the appearance of being preserved for a long time in alcohol. There was no putrefaction and no smell whatever. Just where the two cords were joined into one there hung the remnants of a membrane. Was this perhaps the remains of a division membrane or amnion between the fœtuses?

The patient complained of no pain, and there was no escape of blood—*not one drop.* This being the case, I refrained from making another vaginal examination. I allowed no vaginal injections. The woman recovered without one symptom of illness. In fact, she could have gotten out of bed the next day if I had permitted her to do so.

I was called away to another patient in a hurry and forgot to take the fœtuses with me. On my returning for them I found they had been cremated.

I thought the case of sufficient rarity to make a report of it. My case also illustrates the point that one should not be too active in interference as long as there are no symptoms demanding that something be done.

REMARKS ON DEVICES FOR FACILITATING THE APPLICATION OF THE SNARE TO NASAL AND NASO-PHARYNGEAL GROWTHS—A NEW MODIFIED SNARE.

By K. P. Battle, M.D., Raleigh, N. C.

To clear the nares of polypi by means of a snare is a matter of the greatest ease and simplicity, if we may judge from the jaunty descriptions commonly seen in the text-books. An illustration is given, perhaps, representing a single polypus hanging from the wall of the cavity, which has been laid open to give a good view, and a wire loop is shown neatly placed around its pedicle. To the inexperience of the beginner nothing seems simpler. But when he comes to these rosy descriptions in actual practice he is sadly disappointed. Probably the first case will be one in which the nasal cavity is completely plugged on one or even both sides. He sees a pulpy mass presenting near the nostril and may not be able to say how many there are or where their pedicles are to be found. If he is patient and skilful he may succeed in removing them, but it will be a very different experience from that which he had been led to expect. In other and less complicated cases he may finish the operation more readily and quickly, but in the course of his practice he will sooner or later welcome any suggestion that may promise to aid him in accomplishing his object. For simple cases, especially if the growths are situated anteriorly, the galvano-cautery battery and platinum wire snare often answer beautifully, but frequently the platinum and iridium, which is much more elastic and resisting than platinum, and yet is as efficient, from an electric point of view, as the other. For naso-pharyngeal growths, however, the cold snare and steel wire are preferable, provided they are not too dense to be cut by it. In getting either the platinum or steel loop around these, if they are large, the aid of the forefinger passed through the mouth and behind the palate is often indispensable. Even then it is in some cases a very difficult matter. When other means fail I have found the method described by me in the NORTH CAROLINA MEDICAL JOURNAL for October, 1887, of great value. This consists in threading two feet of wire through a somewhat shorter rubber-tube, about 1-12 inch in diameter (outside measurement), doubling it and pushing it, perhaps by the aid of the probe, through the nose into the pharynx. The rubber-loop can be manipulated with the finger much more easily than with the bare wire. After it is in position around the pedicle of the growth the rubber can be drawn off, leaving the wire alone. The ends of the wire hanging from the nostril can now be run into the tubes of the snaring instrument—the rest is easy.

Sometimes the growths are out of reach and the finger is of no assistance. The steel wire loop is then most easily applied, but frequent difficulties will arise. The nasal cavities are often so narrow that if the growths are situated far from the front there is exceedingly limited play for the shaft of the instrument. The need which is sometimes keenly felt is that the loop, after being introduced in a straight line with the shaft, may be made to take a direction at an angle with it when the instrument is in position. Since the wire is of steel and comes in a coil, this may be accomplished, to a limited extent, by introducing the shaft with only a short loop exposed and afterwards pushing the wire forwards; as the loop enlarges it will tend to bend towards one side or the other. A previous trial outside of the nostril will have determined the direction. If the curve is not sufficient it may be increased by a kink given the wire by bending it sharply over the end of the shaft. These measures do not always answer satisfactorily, and in a recent case proved inefficient. It occurred to me that if the principle used in Fraenkel's rhinoscopic mirror were applied to a snaring apparatus it would make a useful modification. The idea was embodied in an instrument carefully and well made according to directions by W. F. Ford, of New York, and represented in the accompanying cut. Its purpose may be seen at a glance. It could be made somewhat smaller and with advantage. As will be seen, it is a modification of the standard snare—the Jarvis.

It is not pretended that this is the best instrument yet produced for nasal polypi, posterior hypertrophies and the like. On the contrary, for ordinary use, there are others which are simpler and better. The claim is made, however, that in some cases it will be found valuable.

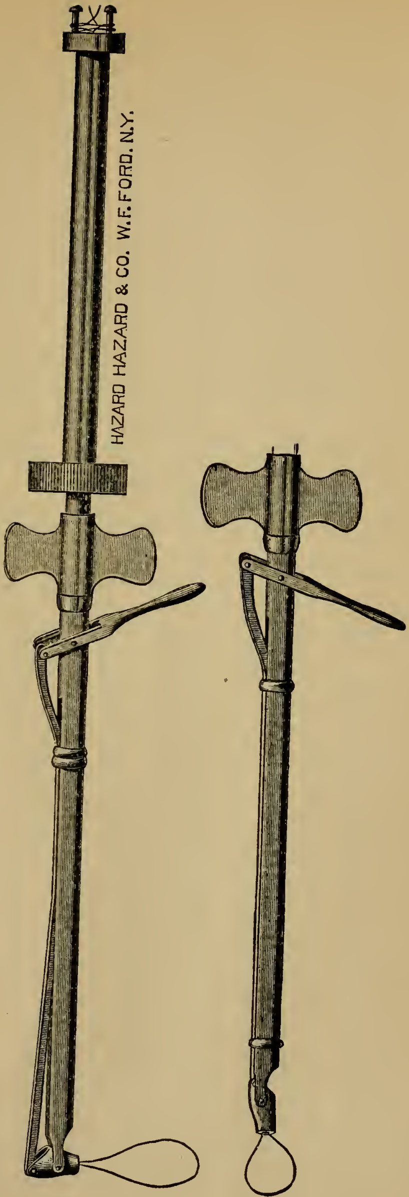
TRANSFUSION OF LAMB'S BLOOD IN TYPHOID FEVER.

By J. H. Jenkins, M.D., Dallas, N. C.

Mr. W. T. Henderson, of this place, who had been seriously ill with typhoid fever for three weeks, had seven hæmorrhages, the last of which amounted to over a gallon—total loss of blood was near two gallons.

These hæmorrhages produced such extreme exhaustion as to make it evident that death would soon follow unless something was done to replace the vital fluid which had been lost.

To meet this emergency, as a last resort I suggested that *transfusion* of blood be tried, to which the family agreed. Being fully aware that there was no time to lose, I very hurriedly sent for Dr. Wilson, of Gastonia (which was only four miles away), to assist me in the operation.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The patient was sinking very rapidly. Pulse was almost imperceptible and respiration labored. The capillaries of the conjunctiva had become congested and nervous phenomena were most severe. In fact, there was every evidence that death had come to this poor sufferer's relief.

Immediately upon the arrival of Dr. Wilson the operation was done, using the blood of a lamb, introducing about one quart of arterial blood. Immediate improvement was noticed. Pulse became stronger, respiration freer and easier, nervous system became quiet and the patient went off into a quiet and refreshing sleep—the best sleep he had taken since he took his bed. Convalescence has been rapid, and he is now able to sit up and walk across the floor a little—only thirteen days since the transfusion.

The blood was introduced directly from the common carotid artery of the lamb into the patient's brachial vein at the bend of the elbow.

I report this case thinking it might be of practical interest to the profession and probably the means of saving precious lives.

A FUNGUS POISONOUS TO HOGS.—We note in the *Botanical Gazette*, February, 1890, from a paragraph by Prof. Farlow, of Cambridge, that Prof. Gerald McCarthy, botanist of the N. C. Agricultural Experiment Station, discovered that a number of hogs had been killed by a fungus, which was determined to be *Clathrus columnatus*. This fungus belongs to the order Phalloidæ, an order which furnishes the most repulsive individuals, of which the *stinkhorn* (*Phallus impudicus*) is an example. Why hogs should choose such food is past finding out, but the fact that our food-animals eat poisonous foods themselves, may account for some of our diseases, and the discovery of one may give the clew to others. There has been a suspicion for many years that "milk sickness" and other diseases come from food eaten by cattle, and we trust that Mr, McCarthy and others who have the technical skill may pursue their researches. The fungus above referred to is common to the Southern States.

PRESIDENT'S ADDRESS.

By Geo. Gillett Thomas, M.D., Wilmington, N. C.

(Delivered before the Medical Society of North Carolina, at Oxford, May 27th, 1890.

Gentlemen of the Medical Society of the State of North Carolina:

To be chosen out of such a body as this, composed of the representative men of the medical profession in North Carolina, to preside over its annual deliberations, and, as far as need be, to guide its work to a successful issue, is an honor carrying with it a deep responsibility, and one not to be lightly accepted, or esteemed as of less than great worth. Imbued with these feelings I am sensible of the grateful returns I owe you for your distinguished consideration, I have accepted this office at your hands, and having performed its duties as they appeared before me during our separation, I offer you in return such a record of the year's work and its suggestions as I am able as a modicum of my thanks for your very pleasing partiality.

At no time since the organization of this Society, in 1849, has there come to it a period of greater responsibility than is just forced upon it. It probably would more properly fit the exact condition of affairs to say that we have assumed the responsibility. For out of this body have gone the laws which have become statutes by the sanction of the law-makers.

The present status of the laws regulating the practice of medicine ought to be a source of congratulation to every right-thinking man of our profession in this State, whether he be enrolled upon our lists, or is not of our fold, but esteems himself an honest man and true to the tenets of his calling. For we stand now armed with the power to bar the entrance to practice to all who had not availed themselves of the opportunity to register before the 1st of January, 1890. The only passport that will avail now is a license from the Board of Examiners—a passport which is worthy of recognition anywhere.

Let us see what the laws have been and what they are now, and what duty they impose upon us in our relations to the profession at large and to the people whose welfare is committed to our keeping. It is known generally that in 1859 a law was secured which gave this Society the power to create a Board of Medical Examiners, who should carefully scrutinize the preparations every candidate who asked for license had made for his professional work. The Legislature which enacted this law was so careful of any infringement upon the rights and feelings of the people, that it was especially provided that no failure to procure a license prior to beginning practice should be deemed a misdemeanor, and set the punishment for such failure by providing that no unlicensed practitioner should be entitled to collect his fees by legal process. Of course, if the law-makers were so gentle in their punishment as this, it was understood that there should be no retroactive application, and therefore that all physicians in practice at the date of the passage of the act were *ipso facto* exempt from its pains and penalties.

Being pioneers in this great reform movement and conservative and wise men, those gentlemen of this Society to whose care the presentation of this law to the Legislature had been confided, felt that it was prudent to accept the law as it was offered them as the best that could be done in the beginning. Fully convinced of the justice of the cause they had espoused, they were willing to wait for time to prove their work, confident that wise counsel would in due time make these laws what they should be. For they were not intended to do more than fence out of the profession the pretenders and those so-called physicians whose educational acquirements were not of such a character as to entitle them to have charge of the lives and health of communities and neighborhoods.

This, as you all should know, was the first time in the history of medicine in the United States that a great Commonwealth had, through its Legislature, assumed control of the practice of medicine and appointed, or rather accepted, officers appointed under its statutes whose duty it is to make the standard of education for men offering for practice within its borders.

I have said this was a pioneer movement. It was more. It was a great revolution looking to increasing reform in medical education. So small was the number of gentlemen composing this Society in comparison with the practitioners without the fold, that it looked as if they had undertaken a task beyond their powers, and the failure to compass the intention of the law, even if the failure was a partial one, would make the law of no avail. The facts, too, that many of those physicians who were exempted by the non-retroactive nature of the law were in too many instances disposed to scoff at the effort to raise the standard of medical education, and that it was comparatively a rare event for a doctor to seek from the courts the power to collect his bills from obstinate and ungrateful debtors, both conspired to weaken the influence of the law, and to render it too often a very weak, if not dead, letter on the statute books. But the same men whose integrity and manhood had impressed the Legislature and secured this first step in this work continued to meet in the sessions of this Society every year, and they comprised a large portion of the best material of citizenship as well as of professional worth in North Carolina. It soon, therefore, became apparent to those men who wished to be aligned with the highest respectability of their profession that they must seek admission to our membership and participate in our aims and intentions. There was no barrier to this laudable ambition save the Board of Medical Examiners, and the committee who supervised the credentials of applicants. If these latter could satisfy the Examiners, these guardians of the public safety, of their possession of the necessary education for the work they had chosen, the Committee on Credentials had only to know that no social or moral obstacle presented to bar them from full fellowship in this body and to the enjoyment of its benefits. They soon became fully alive to the importance of sustaining the measures instituted to protect the profession and were with the rest active in urging the work already so well begun.

But the laws were defective in that no punishment, properly so called, was provided for a neglect to procure a license. Time after time the question of asking for proper amendment to the laws was mooted, and only postponed that the benefits of the statutes, in their unfinished form, might so recommend it to the people, and therefore to the Legislature, that an appeal to the latter body would be met with a willing response.

It was still the proud boast of North Carolina that she was in the lead in this matter of medical reform when the law was amended making it a misdemeanor for any one to begin the practice of medicine in the State after the passage of the amended act of 1885 without a license from the Board of Examiners. This law is no wise affected by the existing laws that unlicensed men already in practice, and beginning after 1859, should not collect their bills by law. But to this law of 1885 was added an unjust and arbitrary distinction, granting an amnesty to all physicians in practice between 1859 and 1880, who had no license and putting them upon an equality with the class exempted by the non-retroactive policy of the statute, as well as with the class of men who had sought and procured the license of the Board. I say this was unjust, because they were no more entitled by any known merit to this special exemption than were those men who belonged to the class coming in between 1880 and 1885, the latter being the year the law with actual punishment attached to it was passed. For these men, who came into the profession in the five years between 1880 and 1885 were no greater violators of the law than their more favored brethren whose professional life was of date between 1859 and 1880. It was arbitrary because there was no change in either the men or their education after 1880 and before 1885, and the formation of this class made the existing laws burdensome and obscure, and would in a short time have justly rendered them so unpopular as to lead to a repeal of all laws affording protection against the admission to practice of men with imperfect equipment.

It is not pretended that this law was immediately productive of the good that was the promise that made to secure its passage. There was a striking and almost fatal defect in that the prosecution of offenders necessitated the making of an affidavit by one or more physicians to the grand jury or to them through the solicitor that this or the other person styling himself a physician was not entitled to such assumption by law. In other words, the disagreeable task of appearing against one's neighbors in medicine, if I may so call them, as prosecutor, was thrown upon those of the profession who had legally entered the ranks. It goes without saying that this would have been followed by the allegations of envy or personal dislike, to be set up by the prosecutor in person and his friends, and, instead of his appearing, as he was, a criminal in fact and in the eyes of the law, he would have been to his followers and admirers the object of organized persecution. It was not intended that regularly licensed physicians should assume the role of prosecuting witnesses, but the solicitors demanded no such affidavits as above set forth before they would send in indictments to a grand jury. I am aware that I am rehearsing what is well-known to many, if not all, of you, but I ask your forbearance a little longer. This state of affairs begot grave concern among such of the members of the Society as were watching now only the course of events, and seeing the deficiencies that existed, and the need of some immediate change, a committee was appointed at Fayetteville in 1888 to frame such amendments to the laws as would secure its ends, and to seek from the Legislature such aid as it would give in the way of amendments. In order to compass the objects of our medical laws it was necessary to know who was practicing medicine in North Carolina and by what color of title they entered and prosecuted their work. When the committee set themselves to the task assigned them they found that all over the State men were practicing, with no right except an assumed one. It has been conceded by the courts of the State that if a person offers to prescribe for the cure of disease, to do such acts as are commonly known as the practice of medicine, he is entitled to style himself a physician. This is a wide margin, and upon it have entered men without diplomas, without license, and, what is worse than all, without such knowledge of medicine or its branches as will enable them to care for the lives and health of such people as blindly put themselves in their hands for protection against disease. To find out who were practicing the committee adopted a method of registration which is known to all of you, and a year ago they turned over to you the result of their labors. They believe that the new law, if carefully watched, will be a complete protection in the future, and they are likewise convinced that such deficiencies as exist are slight in comparison to the benefits, and that, under all the circumstances, they were unavoidable. Let us see again what has been done and the reasons.

When the laws were looked over for amendments it was clear that, under the existing statutes, there were four classes of physicians in the State :

1st. All physicians in practice before 1880, and these were entitled to collect their bills by law and exempted from any penalty for practicing without license.

2d. All physicians beginning practice between 1880 and 1885, without license, who were not entitled, therefore, to collect bills by law, but were not indictable for practicing without license.

3d. All physicians who had obtained license and who were, therefore, entitled to the full protection of the law and its benefits.

4th. All physicians who began the practice of medicine after March 7th, 1885, *without license*, and who were indictable, therefore, for misdemeanor under the law.

To readjust the condition so as to make it possible for the laws regulating the practice of medicine in the State to be of practical avail, the committee began its work by changing the existing laws so that that classed 2d, with its special exemption, should be put on an equality with all the rest, in the following manner: A registration was ordered in all the counties in the State, and this registration under the law made every person securing the clerk's certificate a legal practitioner. The terms of registration were simple and plain. The applicant must have and exhibit to the clerk either a license of the Board of Examiners, or a diploma bearing date prior to March 7th, 1885. And it was further provided that all persons desiring registration must present themselves to the clerks of the Superior Court of the counties where they respectively reside before the 1st day of January, 1890. The penalties for practicing without registration are plainly set forth and in due time the names of every person practicing medicine in North Carolina without the clerk's certificate will be reported to the solicitor of his district for indictment. Six months were given every physician whose address could be obtained to comply with the law, and copies of the law were sent out to these addresses.

The doors of registration are closed, except to licentiates of the Board of Examiners, and before we enter into a study of the results of this new work let us congratulate ourselves that just at the time when this new law was being framed the Supreme Court of the United States gave the opinion that such statutes as those we are working under, regulating the practice of medicine, were entirely legal and within the power of all the States to make. In defence of this opinion they said that such laws were a part of the protection which the State extended to its citizens to ward off the dangers that would menace from having improperly qualified physicians practicing in our midst. And the learned justice moreover declared that it was entirely within the power of the State to so change its laws as to force physicians within its borders to reappear before properly constituted Boards of Examiners and prove that they had kept pace with the improvements in appliances and the advances all along the lines of medicine necessary to the full understanding of the duties of so responsible a profession as ours. This may sound like strange doctrine to some of you, and the cry may be raised that such action would constitute *ex post facto* legislation. I reply that it emanated from the Supreme Court of the United States, and is *pro tanto*, beyond question, a good law. And now, what is this new law which to-day governs the practice of our profession in the State? It is a provision on the statute book which makes known the names of nearly, if not all, of the physicians in our borders, because it requires that every practicing physician shall have registered before January 1st, 1890, and if any failed to do so, and still offered for the patronage of the communities in which they lived, that they are liable to indictment, and if convicted will be subject to fine or imprisonment or both. Moreover, the law provides that a penalty shall be visited upon the clerk if he shall issue a certificate of registration except as provided by law.

We have seen that it has put on record the physicians in the State. First, because through the clerk's of the counties and through letters from postmasters and physicians your efficient Secretary has obtained a list by which the law was sent out, and then these registrations have been returned to me from the clerks. This at once put into the hands of the solicitors ample information for the prosecution of the law, and obviates the necessity of physicians in neighborhoods or communities being called upon to appear as prosecuting witnesses. For if a practitioner is indicted and admits or it is proven that he is engaged in practice, and the clerk's list does not contain his name properly entered, it is clear that a verdict must follow, the uncertainty of jury trials being the only drawback in the way of the law. A soon as practicable after the advent of the new year I undertook to get in the list of registrants from each county from the clerks.

I have had these lists carefully copied, and in each county have also had placed the names of those who were not on the clerk's returns, but who have been sent on to the Secretary as physicians and who were supplied with a copy of the law. The latter are liable for indictment. There are in North Carolina, as well as it can be ascertained, 1,949 engaged in the practice of medicine. Of this number 1,350 have registered and are legally qualified to practice, 599 have not registered, and 24 have registered since the 1st of

January, and it now remains to provide for the application of the law to them.* But of this I will ask you to allow me to speak a little further on.

So much for the registration as it stands.

I am aware that the law which we now have under discussion has been the object of much criticism because of its admission of so many men to the title of legal practitioners that we are loth to recognize as such. I have said that the law of the State allowed any person who shall assume to cure diseases as a means of livelihood to call himself a physician—without regard to race, sex or previous condition. And this being a fixed fact, it is easy to see that it was impossible for any law to be framed that would deprive these people of their rights or of their means of securing a living. A conglomeration of elements met the committee on the threshold of their labors of amending the laws to raise the standard of our profession. In the same ranks in the eye of the law were the physicians who by diligent study and observation had fitted themselves for the task they had assumed; those who, securing a diploma in the easiest way possible to them, had been content to stop there, unwilling to undergo the labor which advance and progress necessitate; those whose only claim to recognition were the well-known ways of the charlatan and pretender. In short, all sorts were in the ranks, and the only method that seemed possible for the separation of the good from the bad and the abolition of the latter was to be the outcome of expensive, tedious, and, most of all, very doubtful, processes of law. To accomplish this the Society would, of necessity, have been forced to take the part of prosecutor, and by contributions from its funds, and if they failed, by drafts upon its members have supported these legal processes.

Again, it was a difficulty not likely to be thought of to reach all, or even many, of these offenders against the medical laws; and as this difficulty seems insurmountable it was best to open the doors to all comers once and for a term of six months, and then to deny admission to any one except licentiates of the Board of Examiners. This is, I hold, good policy. It accepted a necessity and by virtue of its existence made friends for the law of the men whom otherwise must be prosecuted and who would in time be the bitter enemies of all regulations relative to practice of medicine. To weed out only these unworthy ones and leave only the good, was an unattainable state of purity. This law has admitted trifling and worthless characters to a legal footing, and for the reasons set forth. But they cannot live always to mar our profession and no more can enter. In one instance a druggist, and he in the employment of the State, basing his claim to being a physician upon the fact that he had prescribed for diseases and received therefor a fee, made oath that he was engaged in the practice of medicine prior to March 7th, 1885, and was duly registered, the clerk having no power to refuse the certificate to a person who was willing to make the prescribed oath. It remains to be tested whether this party and others had a right to make the oath they did, and in due time, no doubt, the legal status of all such parties will be definitely decided.

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*These figures are subject to correction and changes will be made in them as rapidly as the information can be had from the counties.

In clearing off a great forest for the advent of settlers it is not feasible to get out of sight all the obnoxious weeds or decaying trees at once, or to expect that order will immediately follow the opening work of the pioneers. Time will bring a full justification for all the provisions of the law or suggest such changes as will render it efficient.

This Society is the originator of this law, and it is clearly the duty of this body to aid in every way in its power in securing the prosecution of its provisions. To this end I would suggest that the Board of Examiners shall hereafter have as one of its duties the supervision of the registration in the counties and urge the indictment of offenders against the regulations. It is easily within the power of the Board for a small fee to secure an annual return of the names of registrants from the clerks, and as there are either members of the Society or registered physicians in every county in the State, one or more correspondents may be had among these from whom the names of all persons not legally licensed to practice medicine can be obtained. Of course it is understood that this Society has no right to order this work for the Board, but it is within its province to suggest it. If this method is adopted at stated intervals an officer of the Board should send to the solicitors in the different districts the names of the unregistered persons and call repeated attention of the proper officials to the laws regulating the practice of our profession.

I sent to each of the judges and solicitors a copy of the law to insure their attention to these matters, accompanying each copy with a personal letter written as your presiding officer for the year. The disposition to see that the law should be properly placed in the charges to the grand jury was quite general, and I am convinced that the judges will properly instruct the grand juries in the matter, and that solicitors will not neglect this part of the important work.

This session will bring with it to this body the duty of selecting from its membership, as has been the custom, a new Board of Medical Examiners. It will be your pleasure to preserve the unbroken record of this honorable institution by electing from among yourselves only such men as are capable of filling the office and discharging its responsibilities. There has been a by-law in force in this Society since 1884 that seems to me unjust if its construction is literally insisted upon, and liable to work an injury to the welfare of this organization. It provides that no member shall be elected to the Board of Examiners (and its application has been pushed still further) who is not present at the meeting during which an election is held. If the purpose of the law is to exclude those men who persistently absent themselves from the meetings of the Society, and have as their only connection with its work the payment of annual dues, taking otherwise no part of the burdens of our Association, it is well that it should stand untouched. But, unfortunately, in its strict application, it may and has been made to strike at men who, by their labors and worth, have won the esteem of their fellow-members. Some stress of circumstances, arising out of professional or private engagements, may prevent them from being present at such meetings as this, and if the rule is adhered to, we may cut out men from the rewards which ought to follow this work.

The law has in it this disagreeable feature, that a member, no matter what his record as a faithful worker in our Society may be, must be present at an election time as if he was and must seek an office—the safe rule being that only worthy men shall hold office, and their works must appear and be known to estimate their worth and determine their election. I would suggest that a wise conservatism shall obtain in this matter, and that so much of this law as makes it obligatory upon a member to be present to entitle him to office, be changed so that it shall apply to those whose attendance has been irregular and who have not borne their part year after year in our labors.

The experience of all the Boards of Examiners has been that, upon the inauguration of a new one, there are of necessity a number of difficulties attending the entrance of inexperienced men into the arduous details of the work of this Board. To obviate this difficulty I would suggest that there shall be two or three new members elected every two years, in the manner hereinafter set forth. This will insure continuous work.

There are seven members of the Board to be chosen. To inaugurate this new schedule I would suggest to you that the *three* members receiving the highest number of votes shall hold office for six years, that being the term of service by custom; the next *two* highest shall hold office for four years, and the *two* receiving the lowest number of votes necessary for an election shall hold office for two years. If *four* men or more should receive the same vote and be entitled by number of votes to be in the six year class, they may draw lots for the place, and then the rule may apply, as before, to the other classes.

At the end of two years, the term of the third class, or two year men, if I may so style it, for convenience, will expire, and their successors, when elected, will be chosen for six years, the same rule holding with the second class, or four year men, and the first class, or six year men, in each case the successors being elected for the full term of six years. It is apparent that this will necessitate an election every two years, giving to the Board new material and preserving upon its roll always a certain number of members who shall be experienced in the work.

In reviewing the labors of the Board whose term is closing with this session, it is not unbecoming that you should make careful note of the painstaking care with which they have upheld the standard of medical education. It is no idle boast that we may justly claim for the rigid examinations of our Boards that they have forced such medical colleges as wished the reputation attached to their diplomas to be unquestioned, to carefully prepare their students for their examination, lest they be sent back to them with the stigma of unworthiness set upon them. More than this, our reputation has gone abroad, and it has been the incentive and example for our neighbors, and in nearly all of the States the work upon a plan resembling ours in all practical issues is being actively prosecuted. The duties of this last Board have been unusually arduous, and they have as their reward for the confinement and deprivation their office has brought them the esteem of this Society and the knowledge that they were performing one of the most important parts of the annual conventions. Let the example be studied and their course of action carefully followed.

It is well, in view of the present size and probable growth of this Society, that some definite understanding be had hereafter of the places of meeting proposed for succeeding years. Members proposing to have a convention held in their town should be prepared to offer a full description of routes by which their town can be reached, the hotel accommodations it can afford and the rates that can be guaranteed such members as may attend. The beautiful hospitality that once entertained the members in private houses, when there were a few only of us, can no longer be expected to open its doors to this large body, and the ever-increasing size makes some such provision as above indicated necessary.

There are on our roll of members a number of gentlemen who have grown to mature years in the service of this Society. They have been instant always in their duties and most determined in upholding the honor and good name of the body. We cannot consent to have them leave us or to lose the valuable counsel they always bring. Nor do we wish them to feel that they have in the least abated in their usefulness. But I would suggest to you that after twenty years of continuous service in the Society a member shall be placed on a roll to be called "The Honorary Fellows of the North Carolina State Medical Society;" that such members shall be exempted from the payment of all dues and fines, and be entitled to all the privileges and honors that appertained to membership previous to their election to this special list. Of course only such members will be eligible for this place as have kept up a prompt annual payment with the Treasurer. If this suggestion meets with your favor I would further advise that such a list be prepared during this session and submitted to the Society. Of course members of this class will be entitled to receive the printed copies of the proceedings of the annual sessions of the body. Let us honor these elders as they deserve, and in placing them apart from us have in them a council of senators to whom we can appeal for advice and admire for its wisdom.

Amid the rejoicings and hearty greetings that mark our anniversary; along with the congratulations over the success that is attending the labors of this body to keep alive all things that pertain to the welfare of the profession, as well as over the honors and competencies that have followed as rewards of individual labor, there is forever present at our board a sorrow over the deaths of the honored and loved ones. The older ones have gone, and only their sweet memories are left as our guidepost to duty and success. These memories are, indeed, worthy of careful preservation, for they are redolent with all that makes up the honest man and the true physician. The younger ones have likewise now and again been called away, and we are to deplore their loss, snatched from our midst, when life was full of promise, and strength was happy companion of ambition. Loving hands will commemorate their virtues and good deeds, but it is fitting that we should remember them at this season, and in our sorrow know that we are better and more earnest men for their companionship.

Thou God of Love—beneath thy sheltering wings
We leave our holy dead,
To rest in hope. From the world's sufferings
Their souls have fled.

Oh! when our hearts are burdened with the weight
Of life and all its woes,
Let us remember them and calmly wait
To our life's close.

Let me thank you again for the kind partiality that has made me your presiding officer, and ask at your hands both your assistance and indulgence in the discharge of the duties of my office.

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AN OPEN LETTER

—TO THE—

MEDICAL PROFESSION ! !

THE INFANT FOOD PROBLEM SOLVED.

New York, May 1, 1890.

The Annual of the Universal Medical Sciences for 1889, says: "A perfect Infant Food is still a desideratum; such a food will probably be evolved in the mind of some manufacturer who understands the physiology of infantile digestion and the chemistry of milk. A substitute for human milk to approximate the latter closely should be made entirely from cow's milk, without the addition of any ingredient not derived from milk."

"But not alone do we demand that these Milk Foods contain the equivalent of the solids in human milk, and especially of the albuminoids derived from milk, but that the latter be gathered with the utmost care from properly fed animals, transported with the least possible jolting to the factory, maintained during its transit at a low temperature, then transferred to an apparatus for sterilization, and immediately after the latter has been accomplished reduced to a dry state, in order to prevent the formation of those organisms which Loeffer, Pasteur, and Lester have found to develop in fluid milk after boiling under an alkaline reaction. If such a preparation be put into air-tight and sterilized jars, all will have been accomplished that can be done to render the food sterile, and thus fulfil the chief indications in the prevention of the most serious gastro-intestinal derangements."

"Such a food, too, would have the advantage of being easily and rapidly prepared by addition of sterilized water, affording an altogether sterilized food."

To the *Medical Profession* at large, we submit for examination and trial the perfected Milk Food known as LACTO-PREPARATA. We claim that LACTO-PREPARATA is an *ideal Infant Food*, and that it fulfills the above requirements in every particular, except the partial substitution of cocoa-butter for unstable milk fat. This substitution was made by advice of Prof. Attfield, London, who made extensive tests of its food value and digestibility in the London Hospitals for Infants.

LACTO-PREPARATA is made from cow's milk evaporated in vacuo a few hours after it leaves the udder. In order to have the product correspond in composition with breast-milk, sufficient milk-sugar is added to bring up the carbohydrates and reduce the albuminoids to a proper proportion (17 per cent). The casein is partially pre-digested (30 per cent), and the remaining portion is rendered like human milk in character and digestibility. The ingredients are perfectly sterilized and placed in hermetically sealed cans; the powdering, bolting, and canning are done in an air-tight room, all air entering and leaving this room is forced by a blower through heavy layers of cotton. LACTO-PREPARATA is adapted more especially to infants from birth to six months of age; *and by the addition of water alone represents almost perfectly human milk in taste, composition, and digestibility.*

Another product of our laboratory which has been before the profession for a number of years is CARNRICK'S SOLUBLE FOOD, which, as now prepared and perfected, contains 37½ per cent of the solid constituents of milk, 37½ per cent of wheat with the starch converted into dextrine and soluble starch, and 25 per cent additional milk-sugar. For infants over six months of age it is perfection in every respect; for infants younger than this, Lacto-Preparata is more suitable; although *Soluble Food* has also been used largely from birth with the most satisfactory results.

Samples will be sent prepaid, also pamphlet giving detailed description.

REED & CARNRICK.

NEW YORK.

THE CURETTE AFTER LABOR AND ABORTION.

By J. W. Long, M.D., of Randleman.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.)

Mr. President and Gentlemen:

In asking your kind attention to the use of the curette after labor and abortion, I shall not attempt to treat the subject exhaustively, but the hope is earnestly entertained that the *indications* and *limitations* for the use of the curette may be set forth in such a light as to make these remarks at least suggestive of the proper course to pursue in the conditions we are about to discuss.

That intra-uterine therapeutics have not yet crystalized into cardinal doctrines may be readily seen by reference to the medical journals and transactions of societies. Again, it is wonderful how much resistance is encountered by any new procedure looking to an improvement on the old methods of managing labor and abortion. How often we have all seen patients and wise old grannies object to a simple vaginal wash, or even to changing a lying-in-woman's linens! Nor is this resistance confined to the laity, for doctors are too often heard to deny what they style "meddlesome midwifery." Now, I believe in conservatism, and think it the greatest safeguard to human life that we possess, but I fear in this particular department the opposition sometimes partakes of the spirit that characterized the opponents of Summelwiess.

The curette is one of the most highly prized instruments that I possess, for, besides the numerous indications for its use in the non-puerperal state, labor and abortion are of such everyday occurrence, and each case being liable to such grave complications of hemorrhage, infection and retention of the products of conception, there is a pressing necessity for some means by which we may "become master of the situation." In the curette we have a therapeutic resource that is not only efficient when properly and judiciously used, both as to time and subject, but is convenient, easily applied and safe.

There are just three indications for its use in the days immediately following delivery at term or prematurely. These are *infection, hemorrhage* and *retained membranes.*

There are other indications that might arise later, as chronic metritis, fungus growths, hemorrhage, etc., but it is not the object of this paper to discuss these.

We will first consider *puerperal infection,* or child-bed fever. While the puerperal woman may be the subject of almost any disease—typhoid, malaria, pneumonia, or anything else—it is the well-founded belief of a majority of medical men of to-day that *the fever common to the lying-in period is, in all of its forms, an infection.* No one claims for a moment that the infecting agent is always the same, or that it affects every patient alike, but, as Dr. Grandin says: "The doctrine of to-day is that all essential deviations from the normal in the puerperal state are due to infection, in one way or another, of the puerperal tract."* As a rule, the infecting germ gains access to the endometrium, and here the septic process is inaugurated. Of course, the infection is *localized at first,* and this is the time the infecting agent should be attacked with irrigations and the curette, and thus destroyed before it is swept into the circulation and poisons the whole system. Without going into the details of the pathology of puerperal septicæmia, or dealing in scientific technicalities that would only tend to confusion, it is enough for the practical physician that he divide puerperal septicæmia into two forms:

1. That form which is etsentially *a decomposition—a putrefaction.*

In these cases a bit of retained placenta, or membrane, or blood-clot, or some tissue of low vitality, is attacked by the germs of putrefaction, and the morbid process, once set up, rapidly spreads to the contiguous intra-uterine tissues. It is probable that *no germs are carried into the circulation,* but the product of decomposition, which is supposed to be a chemical agent, is sucked into the veins and lymphatics and systemic intoxication (there is no other word that expresses it) is the result. These cases have no complicating cellulitis or peritonitis, but are simon-pure cases of *intoxication* from some poisonous agent. By way of illustrating this form of puerperal fever I cite:

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*New York Medical Journal, February 16, 1890. Page 172.

SEPTICÆMIA AFTER LABOR AT TERM.

Case 1.—Two years ago last spring I was summoned hastily by wire to attend a consultation in a neighboring town. The two physicians in attendance kindly met me at the depot and stated frankly that they did not know what the trouble was. As we walked to the house they gave the following history:

The patient, Mrs. G———, a young primipara, was delivered by one of the gentlemen two weeks before and had no trouble during labor nor until a week afterwards, when he was summoned and found her pulse 130, some fever and very great prostration. She had grown gradually worse during the following week. I found her in *articulo mortis*, pulse 156, shallow respirations, comatose. It was impossible to discover any lesion outside of the genital tract. There was no peritonitis, not even any tympany; in fact, the anterior abdominal wall had sunken in till it rested upon the spinal column and the hypogastric region resembled a basin. Bi-manual examination revealed the uterus anteverted to the most extreme degree I ever saw, so much so, in fact, that the fundus was lower than the cervix; of course there could have been no proper drainage. I told the husband and physicians that the patient was bound to die—was dying then, but I would like to prove my diagnosis of puerperal septicæmia (or, more properly, sapræmia) by washing out the uterus. They readily consented, and, by means of a metal male catheter and syringe, we washed away a quantity of highly offensive putrid detritus that no doubt was the cause of the woman's death.

2. The second form of puerperal septicæmia is caused by a germ, probably the round bacteria, which on reaching the interior of the uterus rapidly multiplies and *is carried into the lymph circulation*, where it continues to increase and forms in whatever tissues it may be conveyed depots of pus and secondary foci of infection. These are the cases where we have cellulitis, peritonitis, lymphangitis, etc.

From this it may be readily seen how local treatment by irrigation or curette would be effective in the first form, where we have to deal with simply a local putrefaction and its resulting chemical product; and in the early stage of the second form before the germs enter the circulation. In this second form, after the microbes have passed into the lymph channels, neither irrigations nor the curette can be of much avail, and may do positive harm. But in the first, or that form resulting from the absorption of the chemical products of decomposition, it is a singular fact that, no matter how extreme the degree of putrid intoxication anywhere short of the very article of death, removal of the putrefying mass and thorough cleansing of the uterine cavity, will cause the patient to react as rapidly in many instances as a red-hot iron cools on being removed from the fire! This is a strong assertion, but cases in my own practice bear me out, and I doubt not many gentlemen present have seen just such cases, while medical literature contains numerous illustrations of this fact.

While the object of this paper is to advocate the use of the *curette* in puerperal septicæmia and other conditions to be mentioned presently, I wish to be careful not to prove too much, for quite often this very class of cases that we are now discussing yield most brilliant results without resorting to the curette.

SEPTICÆMIA AFTER LABOR AT TERM.

Case 2.—Is a striking instance of the immediate good effects of local treatment without using the curette. In November, 1886, I attended Mrs. P———* through a normal delivery. She did so well that her case was dismissed after the second or third visit. On the *twelfth* day after labor I was again called to see her, and found her nearly dead—tongue pointed, red and parched; skin dry, harsh and icteroid; constipation; urine scanty and highly colored; temperature 101°; pulse 120–130, with little volume and very compressible; respirations humid and shallow. There was absolutely no tympany, not any tenderness except over the fundus. The lochia was abundant and offensive. Her features had that pinched, drawn expression that indicates speedy dissolution. Bi-manual examination revealed the uterus perfectly movable, subinvoluted, boggy, and the os patulous. There was no fullness nor tenderness around the uterus. When the hand was withdrawn from the vagina it was literally dripping with pus, the most putrid I ever saw, and if I had not hastened to the door I should have vomited. Here, then, was a woman who was dying from putrid intoxication due to a suppurating process inside of her womb! How could anything short of removal of this intra-uterine decomposition be of any service whatever? With the kind assistance of Dr. W. A. Woollen the patient was placed in Sims' position and a rubber tube passed well to the fundus; a Davidson syringe was attached and a hot 5 p. c. carbolic acid solution thrown into the uterus until the return stream came away perfectly clear. The first few syringefuls brought away a quantity of fetid pus and broken-down tissue. Now mark the result: by the time this little operation was over the temperature had fallen to 99°, the pulse to 80, with plenty of volume, and the whole morale of the patient was decidedly better!

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*This case was reported at the time in the Nashville Medical News.

Next day, the 13th, while much better, her temperature was 100° and pulse 100. Irrigation promptly reduced them to 98.50 and 70 respectively.

14th.—Temperature 99°, pulse 90. Irrigation brought away an ounce or two of serum-like fluid. From this time on her recovery was uninterrupted except on the

21st day, when there was a slight rise of temperature, which quickly gave way to another intra-uterine injection. But this fortunate outcome cannot always be expected, even in the putrefactive form of septicæmia, by simply using intra-uterine irrigations, for the very obvious reason that the tissues undergoing this putrid decomposition cannot all be washed away in every case, no matter how thoroughly the irrigations are done. Auvard's experiment goes to prove this. He took the largest size Barnes' bag, which in shape somewhat resembles the uterus, and made a section at the level of the inflation tube; this gave him an opening over an inch in diameter. He now filled the bag half full of ashes mixed with small bits of charcoal not larger than a pea, and with the bag held obliquely introduced Budin's and afterwards Doléris' irrigating tube to the fundus of the bag and washed it out with four or five pints of fluid. The first pint came back mixed with the ashes and charcoal while the balance returned without débris. Repeated experiments convinced him of the impossibility of cleaning the interior of the bag by this plan, so he is led to remark: "Now, if this débris, absolutely free within the bag, cannot be all washed out by the current of fluid, it is readily apparent why shreds of membrane and products of septic degeneration of the endometrium, which are adherent to a greater or less degree to the surface of the uterus, are less likely to be detached and washed out."

If this is true of shreds of membrane and the products of septic degeneration, who would suppose for a moment that irrigation would be effective when the placenta is retained *in toto*, as often happens after abortion, or in large pieces, as may happen after delivery at any period! Besides, these retained placental tissues often take on or continue a low form of life.

RETAINED PLACENTA AFTER ABORTION CAUSING SEPTICÆMIA.

Case 3.—Mrs. E——— (colored), had missed her periods four and a half months and considered herself pregnant, but during that time had had three or four bloody discharges at irregular intervals.

When called to her she stated that she was having a bloody discharge which had been on her for three or four days. She was in bed suffering considerable abdominal pain, with several degrees of fever and frequent pulse. Put in Sims' position and the cervix exposed, the os was found to be somewhat patulous. Steadying the cervix with a tenaculum, the sharp curette was passed gently over the entire endometrium, scraping out several ounces of putrid detritus, one piece being as large as a goose-egg and consisting of unmistakable placental tissue. The odor was so overpowering that it gave me the sick headache, and the woman who assisted me complained of the same thing. The uterus was syringed out with carbolic solution and the woman put to bed. She was seen next day and found so much better that I dismissed the case. In this case the woman could give no account of the fetus having escaped, nor could I find any resemblance to it in the scrapings. It had probably escaped at an early day—probably the first hemorrhage—or had been decomposed. In either case an argument in favor of leaving nothing in the womb after abortion.

LABOR AT OR NEAR TERM—RETAINED MEMBRANES AND DETRITUS CAUSING SEPTICÆMIA.

Case 4.—Mrs. W——— was delivered at or near term of a putrid-smelling dead child. Within two or three days fever, abdominal tenderness, tympany and offensive lochia were noticed. Vaginal irrigations did no good, so on the fourth or fifth day after delivery the patient was drawn across the bed, turned on her left side, a speculum introduced and the vagina washed out with an antiseptic solution. The cervix being held down by a tenaculum the uterus was thoroughly curetted, the dull curette being used principally. Quite a quantity of decomposing membranes and detritus came away. This was followed by an intra-uterine douche. This patient's symptoms improved so rapidly that in two or three days the case was dismissed.

So, then, we may safely say that, in view of Auvard's experiments and the occurrence of such cases as the above (3 and 4) that irrigation cannot always meet the requirements and is therefore *inefficient.*

Another objection to the intra-uterine douche is that so frequently it has to be *repeated*, and it may be several times, certainly as often as the temperature rises. Even in a case like No. 2, in which the douche gave most brilliant results, it had to be used *four* times, when, I believe, if the first douche had been preceded or followed by a gentle curetting, the repetition would have been unnecessary. And it is not a great deal more trouble to curette than to irrigate the uterus, especially in properly selected cases.

Again, we often hear of a *death* after intra-uterine irrigation. Dr. Garrigues said last year there had been 22 fatal cases since 1884. This leads us to speak of the dangers of the curette. *Peritonitis and great exhaustion from hemorrhage* are stated to be contra-indications to its use, because with these complications the curette is liable to do more harm than good. As stated above, when the microbes have passed into the circulation and set up peritonitis or other inflammatory complications, we cannot hope to remove them by intra-uterine treatment, and we all know how any pelvic manipulation tends to aggravate an acute attack of peritonitis. But it must be remembered that *all* of the microbes do not get into the circulation, and certainly if we have any reason to suspect that there are any decomposing tissues left in the uterus and the degree of peritonitis is not too great, we would be reprehensible to let a woman die without making an effort to remove it. In Case 4 there was a marked degree of peritonitis present and yet curetting promptly relieved her.

It is unnecessary to dwell here upon the diagnosis of puerperal fever. Suffice it to say that any deviation from the normal, as a chill, rise of temperature, frequent pulse, soreness in the abdomen, difficulty in passing water, or offensive lochia, demands the most thorough investigation as to the cause. Offensive odor, while not universally present in septic conditions of the endometrium, is one of the surest indications we have for prompt attention. The proper plan of treatment in these cases, when we have no suspicion of retained products of conception, seems to be about as follows: On the occurrence of an offensive lochia give a hot antiseptic vaginal wash. This should be done with the woman lying on her back across the bed, her hips higher than her shoulders and the nates resting upon the edge of the bed; an oil cloth falling over the side of the bed conveys the fluid into a bucket as fast as it runs from the vagina. If this does not speedily abate the odor, an intra-uterine douche should be administered with the woman in the same position as for the vaginal wash, or she might have a bed-pan under her. Corrosive sublimate, 1—5000, is one of the best antiseptics for intra-uterine douching. It should be withheld on the slightest indication of toxic symptoms. It is contra-indicated in anæmia, kidney disease and diarrhœa. Dr. Garrigues* speaks favorably of creolin in a 2 p. c. solution. Carbolic acid is objectionable, but is extensively used. The water employed should always be thoroughly boiled first. "The temperature of the uterine douche should not exceed 110° or 115°, and the quantity should not be greater than two or three pints." I use for intra-uterine douching a plain glass tube, which, by heating in a spirit-lamp, can be bent in any desired shape. No speculum is necessary, the tube being guided by the index-finger into the cervical canal, then pushed gently on to the fundus. Of course, we should be sure the fluid escapes freely around the tube, but the os is usually open enough for this in all cases where douching is indicated. If the first douche does not promptly relieve the symptoms, the curette is plainly indicated. I should not waste time with even one douche in any case of septicæmia if there was any suspicion of retained membranes or placental tissue; or if pregnancy had not reached more than four months, or the fœtid odor was accompanied with much hemorrhage, or if the symptoms of toxæmia were severe, or if the patient was so

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*Loc. cit.

NOTES ABOUT SOME SEASONABLE REMEDIES FOR PREVALENT SUMMER DISEASES.

Among the diseases that are especially prevalent during the hot weather are the intestinal disturbances: diarrhœa, dysentery, intestinal colic, gastric irritability, etc.

The remedies commended for these affections are manifold, and must necessarily vary with the individual conditions. Simplicity of medicinal treatment in these cases is, we believe, practiced by the most intelligent physicians. As easily available, eligible and convenient remedies, when other than dietetic or hygienic measures are desirable, we may mention the following, supplied by us, which have proved efficient in the experience of many physicians:

Chloranodyne, a preparation of much value as a sedative, anodyne and antispasmodic in disturbances of the digestive tract incident to summer. The formula is an improvement upon the chlorodyne of J. Collis Browne, M.R.C.S.L., which has long been established in favor abroad.

Among intestinal sedatives tablets of bismuth subcarbonate and subnitrate, antacid tablets, soda-mint tablets, Dover-powder tablets, pepsin and bismuth tablets, arsenite of copper tablets, and pepsinum purum tablets or pepsin cordial when diarrhœa is dependent on fermentation of undigested food, offer a choice for selection to meet the varying indications present.

Our pepsin cordial presents the ferment in an especially desirable form for administration, being permanent and palatable, as well as possessing in a high degree the proteolytic properties of the gastric juice.

The antiseptic and sedative treatment of intestinal disorders is a deservedly popular one, and in this class of remedies we would remind physicians of the antiseptic yellow oxide of mercury tablets which have proved of so much service in septic forms of dyspepsia, and prophylactic against diarrhœa and dysentery.

For local use mercuric iodide tablets will be found convenient for making solutions of any desired strength, and for purposes of disinfection of excretions, or surroundings, antiseptic liquid or thiocamph may be employed to advantage.

There is another class of remedies, to which we ask especial attention, of much service in inducing emesis in children or adults in which overloading of the stomach or intestines leads to diarrhœa. A most reliable and certain emetic for this condition is normal liquid ipecac (standard two-per-cent. emetine). This is valuable also in croup incident to the exposure of children to sudden changes of temperature and the out-door life of summer.

For use as an expectorant for coughs and colds, two recent remedies are being largely employed, viz.: cocillana and Goanese ipecac.

Information as to any of these remedies in the form of descriptive circulars and samples for testing when desired, will be furnished to physicians on request.

PARKE, DAVIS & CO.,

DETROIT AND NEW YORK.

situated that I could not see her often, but should proceed *at once* to use the curette.

The woman is placed in the same position as for the douche, while the external genitals are thoroughly cleansed and the vagina irrigated with a hot 1—2000 or 3000 bichloride solution. The fundus being located by bi-manual manipulation, the patient is put in Sims' position and the speculum introduced. The cervix being hooked down and steadied by a tenaculum, the canal is dilated, if not sufficiently patulous, with a steel dilator. It is well to get the uterine curve by means of a small, blunt probe, after which the curette, properly bent, is passed carefully and gently over the entire endometrium. The practiced hand can readily tell the difference between normal and abnormal tissue. Quite often it is wonderful the amount of detritus that can be raked out. We can be sure we have thoroughly emptied the womb only when the odor disappears and the cavity perceptibly diminishes. This decrease in the cavity of the uterus during the act of curetting is an important point and may be confidently expected in all cases where the work is properly done. The curette is immediately followed by a hot uterine douche of boiled water containing bichloride, 1—5000, or carbolic acid 3 or 5 p. c., or 2 p. c. solution of creolin. This douche should be given with the woman on her back, unless in cases of early abortion, when syringing out the uterus with a long nozzle hard rubber syringe, will answer every purpose. The long nozzle can, by dipping it in very hot water or greasing and heating in the flame of a spirit-lamp, be bent into any desired shape. After the operation it is considered best by some to leave an iodoform pencil in the uterus; while others prefer a cauterizing antiseptic applied to the curetted surface. In the January number of the *American Journal of Obstetrics* Dr. Polk has an able article on "The Treatment of Acute Endometritis by Drainage." In speaking of that form which follows labor and abortion, he says that the walls of the uterus should be first freed by the curette from any deciduous tissue, all blood-clots removed, irrigation done, and the cavity of the uterus loosely packed with gauze or wicking, bringing the excess out through the cervix and vagina. He claims the best results from this treatment.

In closing this part of the subject I cannot refrain from quoting Dr. Currier's review of Charpentier on

"CURETTING THE UTERUS FOR PUERPERAL SEPTIC ENDOMETRITIS.

"Charpentier says that the cause of puerperal infection is an extraneous septic element which multiplies within the uterus or vagina, penetrates the blood and produces grave, or even fatal, accidents. The development of this micro-organism produces a septic endometritis. General treatment in such cases is useful, but should only be auxiliary to local treatment, which is most efficacious. Intra-uterine injections are frequently useful, but they sometimes fail in producing the desired end. At such a time there is no means so efficient as curetting. The patient should be placed in the obstetric position, the vagina irrigated and the uterus drawn down. If the cervix is not dilated, dilatation should be rapidly performed, and the uterine cavity irrigated with an antiseptic fluid. An antiseptic curette should then be applied over the entire uterine mucous membrane, the scrapings removed, the irrigation repeated, and a cauterizing antiseptic applied to the curetted surface."

When *hemorrhage* follows labor or abortion, it is with very rare exceptions due to some retention within the uterus of some tissue that should have been expected. If the hemorrhage occurs within the first few hours after labor, at or near time, before the os has contracted; the aseptic hand may be passed into the cavity and all membranes, clots, etc., successfully raked out. This, with kneading the fundus, ecbolics, or faradism, will usually arrest the hemorrhage. But this treatment is not applicable after contraction of the os takes place, or after abortions. Here the only rational plan is to thoroughly scrape and empty the womb with the curette accompanied by the douche and all the other antiseptic precautions advised in septic conditions.

Two cases from practice will suffice to illustrate the happy effects of the curette in hemorrhage following labor and abortion.

HEMORRHAGE AFTER LABOR.

Case 5.—Miss W——— was *delivered* of an illegitimate child in the absence of a physician, the labor being precipitate. The child was born breech foremost, and was dead when seen by myself about an hour afterwards. The placenta came away normally. The labor was in no way exhausting and the woman expressed herself as feeling very comfortable. Next day it was noticed that the flow was too bloody; this increased till by the fourth day the hemorrhage became alarming and the woman seemed in danger of flooding to death. With the approval and assistance of Dr. Woollen the curette was thoroughly used after the manner described above. It was surprising how little scrapings came away, but the hemorrhage stopped, the womb contracted and the patient put to bed feeling much better. There was absolutely no hemorrhage after this except on the third day after the operation a moderate flow came on, lasting only a few hours. This was probably caused by some imprudence, as sitting up.

HEMORRHAGE AFTER ABORTION.

Case 6.—Mrs. S——— was taken on the night of the forty-second day after her last menstruation with sudden profuse hemorrhage. I saw her next day and found her greatly exhausted, having found large quantities of blood and clots. Put in Sims' position, something was seen protruding from the os. The curette brought out first what proved to be the fœtus enclosed in its sac, and which I present to you. Several spoonfuls of placental tissue was brought away, when, the hemorrhage stopping and the uterus contracting, the cavity was syringed out and the patient returned to bed. There was no return of the flooding.

The question of removing at once with the curette *all membranes and placental tissue that do not otherwise come away promptly,* has been hotly contested. In view of the fact that such retention is often the cause of septic process and hemorrhage, it is the practice of a large number of our best men to remove them at once with the curette. This saves anxiety and future trouble. It seems to me, however, we ought to be conservative, and if the placenta comes away in toto, it is better to wait and not run the risk of infecting the woman by removiug remnants of membranes. This is specially applicable to cases at or near full term. If a large piece of membrane, or even a small piece of placenta was retained, I must confess I should want to go after it! Waiting is good policy sometimes, but not always free from danger.

SEPTICÆMIA FROM RETAINED PLACENTA AFTER ABORTION.

Case 7.—Mrs. ————— aborted about the seventh or eighth week. From a false sense of modesty she deferred even a vaginal examination till after a few days, when marked symptoms of septicæmia supervened. Gaining her consent I removed with the curette a quantity of offensive tissue which quickly brought relief.

PLACENTA AND MEMBRANES RETAINED FOR A MONTH WITH SEPTICÆMIC SYMPTOMS.

Mrs. B——— aborted while in the water-closet at about the second month. I saw her the second day afterwards, and, feeling sure there was retention, insisted on curetting. As I could not attend to it that day, an appointment was made for the next. But when I called next day she refused to let me do anything, so, as a matter of necessity, I retired from the case. She was then suffering with septic symptoms of not a very severe type. The physician who was called in to take charge of the case treated her faithfully for *four weeks* with medicines and vaginal douches, the patient being sometimes better and sometimes worse. Finally he told her that curetting would have to be done, which he did with immediate permanent relief to the woman.

While the average practitioner ought to be able to do this little operation, I don't think it justifiable for any one to enter the uterus without having a clear, comprehensive knowledge of what asepsis means. Gentleness and thoroughness are among the essentials to success. As to the use of an anæsthetic, I let each case be a law to itself. If a woman can easily and willingly bear the operation I do not use one, but if she is timid, or very sensitive, or peritonitis is pronounced, I sprinkle a little chloroform on a handkerchief and hold it to her nose.

I have made no reference, thus far, to the kind of curette, whether dull or sharp. While, as a rule, the sharp curette is more effective than the dull, it is less safe; for that matter, however, I consider either the sharp or dull curette a dangerous instrument when in the hands of an incompent man. My preference is for the sharp instrument, with occasional use of the dull, when there is much softening of the uterine walls. For the benefit of those who may be epecially interested in this universally important subject, I append a few references that have proved of great service to me in the preparation of this article :

"The Use and Abuse of Antiseptic Injections in Obstetrical Practice," by Dr. H. J. Garrigues; Transactions American Gynecological Society for 1889, and reported in the *New York Medical Journal,* September 28, 1889.

"A Plea for the Active Treatment of Puerperal Endometritis by Means of the Curette," by Dr. Egbert H. Grandin. Read before the Medical Society of the County of New York, December 24th, 1889, and reported in the *New York Medical Journal,* February 16, 1890.

"Remarks on the Use of the Uterine Curette," by Dr. Walter B. Chase. Read before the Medical Society of the County of New York, at its eighty-fourth annual meeting, and reported in the *New York Medical Journal,* March 8th, 1890.

"The Treatment of Acute Endometritis by Drainage," by Wm. M. Polk. Read before the Obstetrical Society of New York, May 21st, 1889, and reported in the *American Journal of Obstetrics,* January, 1890.

"Curetting the Uterus," by Sabail; *Journal de méd.,* October 6th, 1889, and given by abstract in the *New York Medical Journal,* March 22d, 1890.

The ever progressive house of Parke, Davis & Co. are out this month with some seasonable suggestions as to eligible remedies for prevalent diseases of hot weather. They have a very convenient list of intestinal sedatives, antiseptics, antispasmodics and anodynes for diarrhœal and dysenteric affections, some new expectorants of note for coughs and colds, and a normal liquid ipecac always reliable as an emetic in cases of gastric disturbances due to accumulated fermented food, so frequent a cause of infantile diarrhœa. By way of gossip, we may state that this house is largely increasing its facilities for the manufacture of pharmaceuticals. Buildings now in progress of erection will double their capacity for production this year, and a new laboratory, very complete in its appointments, is now being built for them in Canada.

THE PROPRIETY OF INTERFERENCE IN GUN-SHOT WOUNDS OF THE ABDOMEN.

By John Hey Williams, M.D., Asheville.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.)

The question of the propriety of surgical interference in gun-shot wounds of the abdomen is one of general interest to the profession. It is a question that as yet is in a formative stage, though I think that the tendency of the day is toward a bolder and more advanced policy in dealing with wounds of this character.

The do-nothing plan of masterly inactivity, so-called the expectant plan, is to my mind a cowardly method of dealing with the most fatal of all trunk wounds.

I am gratified to present to your body to-day the report of a case that I regard as of much importance as a mile-stone on the road of progress to a better and safer method of dealing with such cases. I shall give you the details of the case as succinctly as possible, leaving the matter with you for further comment.

On April 26th, at 4 p. m., was called by Dr. A. S. Whittaker, of Biltmore, two miles out of Asheville, to see with him a case of gun-shot wound of the abdomen. Dr. Whittaker had been called to the case immediately after the shooting, which occurred about 1 : 30 p. m.

An over officious deputy sheriff brought Dr. Whittaker from the side of the patient to the office of a justice of the peace before he could do more than minister to the immediate wants of the man. While in town, recognizing the gravity of the case, and having but little faith in the do-nothing plan, he requested me to accompany him. We found the patient, Charles Walker (colored), aged 22, lying upon his right side upon a pile of straw and ragged bed-clothing, in a small shanty which had been used for the storage of tools, etc., of a brick-yard near by in which the man had been employed. His face was pinched, extremities cold.; complained of a smothering sensation in chest and fluttering of heart.; sick at stomach; some vomiting. On inquiry, he stated that he had been shot about three hours before in an altercation with another negro, who stood about two paces in front of him.

The pistol used was a 32-calibre. The concussion was sufficient to knock him down. He got up and grappled with his assailant, knocked him down and took the pistol from him. He then noticed the blood on his clothing, which was the first he knew of his having been wounded.

Inspection showed a small powder-burned hole in his outer flannel shirt and a ragged hole in the knit under-shirt. There was a small wound just in the left edge of the umbilical pit or depression; a piece of strangulated omentum was protruding from the small opening, evincing the opening of the peritoneum. The abdominal walls were rigid, the recti muscles especially tense.

A short consultation decided us to make an exploratory opening to determine the course of the ball and the damage done to the viscera. On account of the dark and filthy condition of the shanty we moved the man to an empty box-car standing on the side-track near by, placed the man upon a cot and prepared for the operation. Some luke-warm water was procured from a house near by. No hot water could be had and darkness was fast approaching. Dr. Whittaker took charge of the chloroform and kindly handed me the knife. I prepared my hands by first washing them in warm carbolized and borated water, then rubbed them well with a bi-chloride tablet, then rinsed them in the carbolized water. A probe-pointed bistoury was next passed over a grooved director and the wound enlarged upward one and a half inches and some two and a half inches downward. Passing two fingers into the opening, I first swept them over the transverse colon and under side of the stomach. Finding them intact, I then passed them over the convolutions of the ileum. I soon felt an opening. Drawing up the loop, I laid it on the abdomen and was able to inspect it leisurely. I found an opening near the mesenteric attachment, oval in shape, about five by seven mm. in size. The mucous membrane was everted, completely occluding the opening. Turning the gut over, the opening of exit was found just opposite, rather more ragged in outline, but completely plugged by the everted mucous membrane. I wiped clean the gut with my hand, rinsing it in the carbolized water and closed openings with the Czerney-Lembert suture, using an ordinary sewing-needle and carbolized silk, making the suture in the line of circumference and not the axis of the bowel, since it is obvious that the loss of tissue in inverting the edges and closing the opening, if taken from the circumference, would diminish the calibre, producing to that extent, at least, a stricture of the bowel. Carefully wiping the intestine, I returned the loop and drew up the adjoining loop to the left, where I found two other openings of the same character, one of entrance and one of exit. Closing them in the same manner and ligating two small mesenteric vessels, the loop was cleansed and returned in the same manner. I carefully ran over the remainder of the ileum, but found no further injury. Careful inspection, however, revealed a long rent in the descending colon near the sigmoid flexture diagonally across the gut. The rent was closed in the same manner. I was unable to find the ball, and evident signs of failure of the vital forces of the patient at this juncture compelled a speedy finish to the operation. The abdominal wound was closed with deep wire sutures, which included all the coats of the abdomen as well as the peritoneum. Iodoform was freely piled upon the line of the incision, a borated cotton compress applied and the abdomen enveloped with a firm bandage. No water was used in the cavity whatever, the gut being cleaned with the fingers after rinsing the hand carefully in the carbolized water. The course the ball took showed that it had been deflected by the cicatricial tissue of the umbilicus, the range being downward, to the left and slightly backward. There was no escape of fæcal matter owing to the close apposition of the folds of the intestine and the occlusion of the holes by the everted mucous membrane. As soon as the operation was completed one quarter grain of morphia was given hypodermically. Patient rallied from shock of operation in about two hours. The further progress of the case was uneventful, and may be epitomized as follows :

April 27, a. m.—Has rested well, pulse 78, temperature 99. Very little pain. Half grain of morphia every four hours. Tablespoonful of milk every two hours.

April 28, a. m.—Pulse 78, temperature 99.

3 p. m.—Temperature 99 4-5. Ordered tincture of aconit, gtt. 1½ to 2 every two hours.

April 29—Temperature 98¾, pulse 68. A little tenderness over abdomen. Slight tympanitic note over epigastrium and over liver, Gave powdered opium instead of morphia. Complained of gasses in retum. Gave an enema of glycerine, passed ball with stool.

April 30.—Condition same except that temperature jumped to 101 about 4. p. m.

May 1.—Morning, temperature 98, pulse 68. Gave milk and beef tea. Small enema of warm soap-suds, followed by full movement. Some cough, for which gave mur., amon. and comp. glycrrh. mist. moved back into the shanty, car wanted for service.

May 2.—Pulse, temperature and respiration normal.

May 3.—Same. Bowels moved normally.

May 4.—Gave oat flakes with milk.

May 5.—Removed wire sutures, dressed with adhesive straps, wound thoroughly well, closed except at lower angle, where skin was not in good apposition.

May 6.—Dressed with broad pieces of adhesive plaster, with perforated edges, to lace over borated cotton pad. Got out of bed and walked out of shanty.

May 16.—Going about freely, says he has very little tenderness in abdomen, sudden movements or jars to abdomen cause a slight uneasiness. Pulse and temperature normal.

Any one having a complete, or nearly complete, set of the Transactions of the Medical Society of North Carolina, especially of the earlier numbers, can make a valuable exchange by letting the Journal know what they have.

Bacteria not Increased in the Soil of Grave-yards.—In a report made in the *Centralb. f. d. med. Wissech.* (*Br. Med. Jour.*, June 21) it is stated by Dr. Reimers, in his 11th and 12th concluding propositions: "Burialgrounds made no difference to the germ contents of the ground; neither beside nor underneath coffins was any increase in bacteria found. Samples of earth from a grave thirty-five years old, and from another one year and a half old, also showed no increase. These results are somewhat surprising, and, if true, are of great importance from a national hygienic point of view.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

Thomas F. Wood, M. D., Wilmington, N. C., }
Geo. Gillett Thomas, M. D., " } Editors.

☞ *Original communications are solicited from all parts of the country, and especially from the medical profession of* The Carolinas. *Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the* Journal, *by sending the address to this Office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to* Thomas F. Wood, M.D., *P. O. Drawer* 791, *Wilmington, N. C.*

THE OXFORD MEETING.

Earnestness of Purpose and Wisdom in Execution—Capacity for Varied and Continuous Work—The Society under the New Law—The Literary Features—The Large Numbers Present—The Immense Labor of the Board of Examiners—The Proposition to Elect Officers by Ballot.

A review of the work done at Oxford by the Medical Society of North Carolina demonstrates the fact that there has been advancement along the whole line in the different departments of activity set on foot from time to time since 1845, and that much of the made ground upon which the Society has built with so much care, and with such anxious forebodings, has solidified and become a common basis upon which the future superstructure may safely stand.

Let us consider some of the facts: Here is a voluntary body, meeting at an expense of at least five thousand dollars, undertaking the shaping of legislation upon the broad basis of more thorough education, and compelling, by the judicious and patient application of well-directed influence, a whole State to recognize its wisdom. This advance ground being secured, the honors, if not the emoluments, of the honorable places this legislation created, were of course worthy of the ambitious desires of the best physicians in the State. This ambition once awakened does not always flow in legitimate channels, but this Society witnessed the election in open meeting of seven of its members to serve six years on the Board of Examiners, without a jar, without any methods known to the politician, and secured a new Board which we are willing to accept as representative men, and to which the safety of the law may be intrusted with all confidence.

We have seldom seen such a busy body of men. Without a schedule that could be adhered to, with no other guidance than zeal and the true spirit of brotherhood, one matter succeeded another in economical sequence of time—here a case to report, there a matter of Society policy, now a set paper, here an invited lecturer, now one thing, now another, all strung along with one apparent purpose of putting in every hour of time that nothing should be left undone.

This was the first meeting of the Society under the completed law of registration. Some had come to the meeting without knowing the full import of the details of the law: some disposed to believe that some unpopular clauses of the law were going to threaten its existence, others willing to throw down the gauntlet to all opponents of its provision, all discussing with the heat of men who had convictions *pro* and *contra*, but at last coming to the conservative conclusion, as set forth in the transactions in our last number, that the law was just, and popular and wise, and with the learning and good judgment of the Attorney General all could be made to work as harmoniously as its most enthusiastic framers could have dreamed.

The literary work was decidedly better than that of last year, and, while we have not reached a point of excellence where we would be willing to rest our reputation, it is a matter of immediate concern that, having finished the laborious task of entering into the possession of a new territory, we should not rest here, but show by our actions that the higher cultivation we have been aiming at, and to which we have tacitly committed ourselves, is about to be practically demonstrated.

The number present exceeded 250, including the 72 applicants for license, and all these were not only cared for, but bountifully entertained by the hospitable citizens. For all this, there was felt a lack of facilities for personal interviews, such as a large hotel offers. Such intercourse is not only pleasant, but indispensable to that thorough interchange of views necessary to shape the policy of such a large body as the North Carolina Medical Society with its important auxiliaries.

On every hand we heard the Board of Examiners commended for its unselfish and impartial labors. We cannot imagine a more severe taxing of the brain than a week's work in examinations. The intensest strain the practitioner has to endure in anxious obstetrical and surgical operations do not exceed the wearing toil in this work, and that seven gentlemen can be found to serve six years at it, is a striking manifestation of the earnestness with which our physicians have set their hearts upon professional advancement. The new Board will undoubtedly ascend the higher plane which their predecessors have wrought out for them, aud in their turn still farther advance the standard. We have safely passed the period of experimentation, and we can safely offer to our dear old mother, Carolina, our finished work as an earnest of what we still have it in our hearts to do towards compelling the education of those who are to be our successors.

The election of officers in open meeting by ballot has been forecast in a resolution now lying on the table until the Asheville meeting. It should be seriously discussed, because it may involve the destiny of the Society. It is not new. The Society formerly conducted its elections by ballot in open meeting, and found it best to abandon it, and our action was simultaneous with that of the American Medical Association, the American Public Health Association, and most of the flourishing societies in this country. The reasons are that elections beget the spirit of party politics, consume time, and at last succeed in selecting the most popular man, and this result may be most prejudicial. In a Society receiving large accessions as ours does each year, it is necessary that we should give ourselves time to assimilate this new material before we devolve upon them the important task of selecting the higher officers. These new members must have time to know the history and traditions of our work, and to know the men and the means necessary to continue a healthful succession. Furthermore, as the matter stands, at every yearly session we have an election hereafter, one year for two members of the North Carolina Board of Health, the next year for two for the Board of Examiners. In this new order of things we will consume quite enough time of the sessions in elections, and we cannot increase this without cutting short the time, now already too limited (witness the increasing number of papers read by title and referred) in which we receive scientific literary contributions. The time now much needed for the discussion of the several papers presented is altogether too short. Lastly, the old method of nominating by committee has given us a line of officers, with hardly an exception, who have been imbued with our traditional necessities and inspired with the ambition of future successes. These are some of the reflections which have been suggested by the proceedings of the Oxford meeting, and we hope our readers will give us the benefit of their reflections during the year.

OUR NORTH CAROLINA DOCTORS.—Our esteemed contemporary, the *Boston Medical and Surgical*, reprints from the *Raleigh Chronicle* an extract which we are glad its keener eye caught before us. Speaking of the late meeting of the Medical Society of North Carolina, it says: "There is no profession in the State that stands higher—and deservedly so—than the medical profession. Learned, kind, sympathetic, benevolent, they are an honor to the Commonwealth, and deserving of all the esteem and love that an affectionate and grateful people can show to the best product of their civilization."

REVIEWS AND BOOK NOTICES.

FEVER, THERMOTAXIS AND CALORIMETRY OF MALARIAL FEVER. By Isaac Ott, M.D.

We have had before us for sometime this stout pamphlet from the pen of Dr. Ott, studying the exceedingly interesting laboratory experiments on the profoundest of all subjects and the most interesting of all subjects, and we may add the most subtle of all subjects—fever. The profession owes a great debt to such plodders in the scientific realm, but they hardly give just weight to the influence that such studies have upon our theories.

Dr. Ott's experimental researches lead him to believe that fever is due to an agent from within or without which deranges the harmony of the thermotaxic, thermogenetic and thermolytic apparatus, by which in the initial stage the metabolism of the tissues usually temporarily increased, and this increment is usually greater than that generated upon a restricted amount of increment. It is highly probable that during the chill heat dissipation is temporarily diminished, but it usually follows the fluctuations of heat production.

Again, he says: "High temperature does not cause gravity in fever, for in nervous disorders and in relapsing fever we have high temperatures of 106° F. and no serious symptoms are present. High temperature is an indication of danger in specific fever, not the cause of it. But temperature is only a part of a specific fever, there are many other morbid processes going on, the essence of which has not been grasped."

The experiments are detailed upon which he bases his deductions, and will bear the scrutiny of physiologists and pathologists.

The instrument designed by the author for the study of the calorimetry of malarial fever he describes and figures. Heretofore the fever phenomena have been studied only from a leg or arm—his studies were made from the whole body.

There is an additional paper on the "Thermo-Polypnœic Centre and Thermotaxis." Some of his conclusions are "that the thermotaxic centre situated in the gray matter at the most anterior part of the third ventricle is the same of the thermo-polypnœic [centre of Richet] polypnœa is a function of the thermotaxic centre." "That in fever neither increased production nor decreased dissipation, nor high temperature are necessary, but that fever is mainly a disease of thermotaxic disorder of the four basal thermotaxic centres. It is true that in septic fever, in its initial stage, heat production usually runs temporarily ahead of dissipation, but exceptionally both are immediately diminished.

That antipyretics, as a rule, neither inhibit nor excite metabolism in a direct manner, but act upon the thermotaxic centres disordered by fever, to restore order or normal thermotaxis."

CYCLOPEDIA OF THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. By John M. Keating, M.D. Vol. III. Philadelphia: J. B. Lippincott & Co., 1890.

Our readers already know that we think well of this superb American work, and we trust that they have been adding the volumes to their libraries. This volume is of great importance, covering the Diseases of the Digestive System, which is by far the most important of all the practice we have to do with children. The second part treats of the Diseases of the Urinary Apparatus.

The separate treatment of the Blood, its diseases and the diseases of the blood-making organs would seem at first glance to have no special connection with children, but, after treating a few cases of leukemia, he would gladly find here much that would elucidate his study of his cases. In fact, Dr. Griffith's article on The Blood is full of interest to the student and the practitioner, and gives the latest and the best of all the valuable studies which the microscope has revealed.

Much in the department of Surgery is common to all good works on Surgery, but the editor has had the good fortune to obtain articles on general Surgery and Orthopedic Surgery of such good quality that it will prove acceptable, and not seem out of place in a special work on diseases of children.

The illustrations in the book are excellent, the paper and presswork of a character to delight the eye, and the binding to make it serviceable. Upon the whole, this Cyclopedia easily takes its place with the best work that has been done in this country.

A TREATISE ON ORTHOPEDIC SURGERY. By Edward H. Bradford, M.D., and Robert W. Lovett, M.D. Illustrated with 789 Wood Engravings.

A careful examination of this volume convinces us that it is just the work the profession has been wanting for the past few years. The excellent book of Dr. Sayre on the same subject is unique and strongly marked by the individual impress of its author and had no equal in its day. In this volume we have a more elaborate consideration of the subject, both in curative and preventive surgical therapeutics, and a better representation of the whole field of orthopedics as practiced by the numerous younger surgeons who have so intelligently followed, and received the stimulation of their impetuous master—Sayre.

The activity of the human brain has no more admirable manifestation than in its application of surgery—mechanical and operative—to the cure of deformities. To bring this varied material together and present it in a clear and practical volume of convenient size has been successfully done by the authors, and the general practitioner who must work out many of these problems will find this book an indispensable aid.

There is a cut for nearly every page in the book, some of them are old, some are new, but they are in the main helpful adjuncts to the text. The rarest thing about this volume is that it is a Boston book. Who ever sees a medical book from Boston now-a-days? One has to go back almost to the days of Bigelow's Medical Botany (1821) to find such a rarity. Perhaps this is the good move in the right direction, if so, we say let us have more Boston books.

MEDICAL AND SURGICAL MEMOIRS—Containing Investigations of the Geographical Distribution, Causes, Nature, Relations and Treatment of Various Diseases.

Vol. III. Part I. ENDEMIC, EPIDEMIC, CONTAGIOUS AND INFECTIOUS DISEASES. Measures for their Prevention and Arrest. By Joseph Jones, M.D., 1890. Pp. 542.

MEDICAL AND SURGICAL MEMOIRS. Part II.

Containing Monographs Illustrating the Philosophical Principles of Education and their Scientific Application to the Development and Perfection of the Medical Profession;

Vital Capacity of the Human Lungs in Health and Disease; Contributions to Teratology;

General Medicine, Diseases of the Nervous System, Congenital and Acquired Insanity, Advancement in the Treatment of the

Insane in the 19th Century, Treatment of the Insane in Louisiana, Medical History of the Insane Asylum of the State of Louisiana; The Relations of Quarantine to Commerce in the Missouri Valley, the Use of Antipyretic Remedies in Febrile Diseases, Public and International Hygiene, Progress of the Discovery of Disinfectants and their Application for the Arrest of Contagion.

THE HISTORY OF MARITIME HYGIENE AS APPLIED BY THE GREAT NAVAL POWERS. By Joseph Jones, M.D. Charts and Tables Intercalated in the Text. New Orleans, 1890.

These two ponderous volumes are a fair exponent of the laboriousness of the professional life of Professor Jones. From his admission into the profession he has been a student and an amasser of knowledge. What other men could only do by the aid of a corps of assistants, he has accomplished single-handed. Such authorship is a rarity anywhere, but especially in the South. At every turn the reviewer is puzzled to know which to note and which to skip, and at the same time give our readers an idea of these rare volumes. The study which Dr. Jones has given to yellow fever, and especially in its visitations in the city of New Orleans, is very voluminous. We believe him when he says that he spent time, labor and money in tabulating the vital, mortuary, commercial and climatic statistics of Louisiana and New Orleans, and "that the great mass of facts thus tabulated will prove of lasting value to the student of medicine, hygiene, agriculture, commerce, climatology and political economy in this and other countries."

Most authors who had wrought out with their own brains and recorded with their own pens such a mass of material, would have left their literary remains to their executors to be prepared for the press. Not so our author. With unflinching industry he has published volume after volume, thus storing up for future generations, like the immortal Hunter, material that will serve a future generation of authors to build their reputation upon.

This writer trusts that Dr. Jones may be spared to give us in one volume a condensed epitome of all his writings, believing that it would serve as a text-book upon many of the topics of preventive medicine, and original research, which would be highly valued by the future student.

The number of chromo-lithographs, copies of rare and already dimmed originals, which he gives his readers is large, and furnishes well-nigh inaccessible illustrations.

What the Southern profession owes to Dr. Jones for his indefatigable studies in the prisons of the Confederacy, and of the spurious vaccination which crippled so many Confederate soldiers and citizens can only be estimated by searching and studying these memoirs, and to all ex-Confedrate surgeons and to the rising medical men of the South we commend this mass of wealth.

USES, TESTS OF PURITY AND PREPARATION OF CHEMICAL REAGENTS, Employed in Qualitative, Quantitative, Volumetric, Docimastic, Microscopic and Petro-graphic Analysis, with a Supplement on the Use of Spectroscope. By Charles O. Curtman, M.D., St. Louis, Mo. John L. Boland, 1890.

This is a long title for the best book we have come across in many a day. It is a small 8vo. of 264 pages, but has as much helpful knowledge in it as could well be condensed in a far greater volume.

The uses of reagents are described in such a way as to constitute the book a very useful guide to analysis, giving in a short space what one could not find except a large chemical library, and then he would have to consult volumes in German and French.

A concluding chapter gives a list of tests arranged under the names of the substances to which they are applied, and adds so gaeatly to the work that we would suggest to the author to rewrite his title, and call it a Laboratory Guide to Analysis, describing all the newer reagents and giving directions for determination of their purity.

To all the enterprising doctors who are doing urinalysis and other bits of chemistry for professional recreation or in practical study of diagnosis, we can say truthfully that Dr. Curtman's book is the very one you need.

STORIES OF A COUNTRY DOCTOR. By Willis P. King, M.D., with Illustrations. T. A. Fitzgerald, Kansas City, Mo., 1890.

The children superseded the reviewer in the reading of this volume, and that they all enjoyed it, having in their small heads some knowledge of what a doctor's life is, would be a sufficient guarantee that there is fun in it. The molasses merchants on the wharves of Wilmington used to allow the boys to go from cask to cask trying the molasses through air-holes with sticks whittled out of juniper shingles. Knowing that the boys would flit about from one to another cask, stopping only at the sweetest molasses, the merchant had only to point out to his customers the trails of molasses left there by them, and his selection was easy. With this introduction we leave Dr. King's entertaining book to the doctor who knows how to laugh, and when to laugh at a good thing.

A Colonial Officer and His Times (1754–1773). A Biographical Sketch of Gen. Hugh Waddell, of North Carolina. By Alfred Moore Waddell. Raleigh: Edwards & Broughton, 1890.

True, this volume has nothing to do with doctors or medicine, but, like a Boston medical book or a North Carolina book, is a rarity, and we want our readers to know about it. The historical spirit has at last been awakened in our State, and we see in this volume what we hope to see frequently hereafter, a desire to go to original sources for information about our early history. Colonel Waddell, the author, is a historical student of high ability, of most excellent literary taste, and this example of his skill as a writer will, besides winning for him a numerous audience, we trust, be but the earnest of more extended work in the same line. We do not deem it appropriate to discuss any of the views therein contained about the "War of the Regulators," but we would just like our readers to know about so choice a volume.

Regional Anatomy in Its Relation to Medicine and Surgery, by George McLellan, M.D., is announced by Messrs. J. B. Lippincott & Co.

This book will have 100 full-page *fac simile* illustrations reproduced from photographs taken by the author of his own dissections, expressly designed and prepared for this work, and colored by him after nature. It will be complete in two volumes of about 250 pp. each. The work will be sold by subscription only. Vol. I. will be ready by December 1st, 1890.

Portraits of Dr. Will. Geo. Thomas.—These beautiful portraits, on heavy plate paper, are now finished ready for delivery. They will be sent securely by mail for 50 cents each.

CURRENT NOTES.

The Pittman Prize.—No papers of sufficient merit having been presented, the Pittman Prize was not awarded this year.

The New York Academy of Medicine, 12 West 31st Street, New York City, has removed to 17, 19 & 21 West 43d Street, New York City, where all mail should be addressed.

There is no better antiseptic for the bladder than healthy urine; there is no more dangerous one than when the latter is made to undergo active decomposition.—*Reginald Harrison.*

Portraits of the Board of Medical Examiners 1878–1884. —In reply to requests for the group of the Board of Examiners of 1878–1884, we announce that we have a few of the photographs that will be mailed on receipt of the price (50 cents).

The D. Appleton & Co. Prize.—Dr. Robert S. Primrose, of New Berne, having attained the highest standing at the recent examination before the State Board of Medical Examiners is entitled to Messrs. D. Appleton & Co's prize of $25 in medical books.

Nitroglycerin—Trinitrin—in Gas Poisoning.—Dr. Wm. C. Kloman, of Baltimore, reports a case of gas-poisoning which he treated with nitroglycerin subcutaneously in 1-50 gr. dose. Should this prove further successful it will be a valuable addition to our antidotes.

A medical friend tells of a striking instance of the efficiency of strychnia in the restoration of lost sexual power. A negro recently came to him "to get something for his courage," and strychnia sulphate was prescribed in doses of 1-60 of a grain. Our friend says "and in just two weeks he retured with a beautiful chancre!" Quick work, even for strychnine!

Features of the Preparatory Medical School of the University of North Carolina.—Dr. Whitehead states in his circular that many of the regular medical colleges cannot or do not furnish thorough instruction in those subjects which constitute the foundation of medical science, although they have every facility for teaching the higher branches. The large number in the classes especially forms an obstacle to teaching in the elementary branches, especially in anatomy. Students may expect to get thorough drilling in the foundation branches. Anatomy will be taught by dissecting the cadaver; this will be first in the course. Physiology will follow, and finally Materia Medica. The student who can complete these studies with the Chemistry, Botany and Biology he gets in his regular course, will enter the Medical College well prepared to study the higher branches successfully, and make a more eligible candidate before the Board of Medical Examiners.

DETECTION OF SUGAR IN THE URINE BY PHENYLHYDRAZIN.—The chemistry of the urine is being studied from a practical standpoint, giving to the superficial reader an impression that there is an unnecessary refinement. Practically, large interests are involved, as in life insurance business, and it is necessary that we should know that the reagents employed for the purpose are actually reduced by sugar. Delicate tests like Fehling's and Purdy's are now occasionally to be reduced by other substances. Dr. Brandreth Symonds notes in the *New York Medical Journal* 12th July, that phenylhydrazin and fermentation give positive results. The former chemical is prepared from anilin, by dissolving it in concentrated hydrochloric acid, cooling the solution, adding sodium nitrite dissolved in water. Phenylhydrazin may be procured from Eimer & Amend, of New York. Dr. Symonds put about half an inch of the phenyl salt in a test-tube, on top of this put another half inch of sodium acetate, fill the tube half full of suspected urine, shake until the sodium acetate is dissolved, heat gently, and when the whole mass is hot, boil gently for half a minute. If sugar be present, we get a precipitate of phenylglucosazone in golden yellow acicular crystals. They have a tendency to group together in radiating clusters or in sprays, that resemble a feather or a twig of spruce. They are almost insoluble in water, but soluble in alcohol. Tyrosin forms somewhat similar crystals, but they are colorless. Dr. Symonds has found crystals in urine which contained only one hundredth of one per cent. of glucose, but then only after forty-eight hours. If 1-10th of one per cent. of glucose be present, it can be determined in fifteen minutes after boiling. For further information see "Chemical Reagents," by Dr. Curtman.

READING NOTICES.

In short, I can say, in 25 years of practice I have never found an equal to Peacock's Bromides for fits and disturbed nerve centres. It possesses a superiority over fits beyond my expectations. I have recommended it for all it is worth in our locality.

Hamilton, Ohio. M. J. Faivre, M.D.

R. Rhodes Reed, M.R.C.S., Norfolk, England, says: "I have prescribed S. H. Kennedy's Extract Pinus Canadensis as an injection (one part to six) in an obstinate case of chronic gonorrhœa, with very satisfactory results. The discharge considerably diminished during the first week, and after a fortnight's use the patient reported himself quite well."

Succus Alterans.—*Sir*:—My experience of "Succus Alterans" was limited to one case of secondary syphilitic roseola, with sore throat, etc., in which it was administered solely, no other remedy being used. The patient had a scrofulous history, hence the reason I selected it. Its administration was attended with the happiest results. The young gentleman made a complete recovery, and has since then (about two years ago) enjoyed excellent health, not having the slightest return of any syphilitic symptoms.

P. J. Macnamara,

I am, sir, your obedient servant,

(M.D., F.R.C.S., Ireland; L.K.Q.C.P., L.R.C.S., Ireland; Medical Officer, Bruff, etc.)

Adelaide Place, Bruff, Ireland, March 22, 1889.

The Therapeutics of Hæmoglobin Compound.—The predigestion of foods has done much for the dietary of invalids and convalescents from acute disease or with anæmia and enfeebled digestion. It must be admitted, however, that many cases require frequently in devitalizing diseases some efficient method of rapid nutrition, capable of ready absorption without taxing the digestive functions, to combat the anæmia. This is furnished most naturally by the circulating medium itself—blood containing the elements of nutrition in assimilable form—and a preparation of bullock's blood entitled Hœmoglobin Compound has been prepared which seems to meet the indications admirably. Experiments with this preparation have been in progress by its author, Dr. F. E. Stewart, for ten years past, and Hæmoglobin, as now marketed by Parke, Davis & Co., is the result. This preparation has many advantages as a nutrient stimulant, and samples of it and literature descriptive of its application will be furnished physicians on request.

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NORTH CAROLINA
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NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } **Editors.**

Number 2. Wilmington, August, 1890. Vol. 26.

ORIGINAL COMMUNICATIONS.

THE TERMINATIONS OF CROUPOUS PNEUMONIA.

By Karl von Ruck, M.D., Asheville, N. C.

(Director Sanitarium for Diseases of the Lungs and Throat.)

The terminations of croupous pneumonia were formerly considered to follow the rules of inflammation in general and besides termination in death, older authors recognized termination in resolution, suppuration and abscess, gangrene, and chronic inflammation and induration (Pulmonary Phthisis). So universally were these accepted as the possible terminations of a croupous pneumonia, that if per chance we study any of the older works on the subject, we find no question as to their occurrence, but rather a description of symptoms and signs, whereby to distinguish them from each other.

With the more critical research of later years, especially in the field of pathological anatomy, and in the efforts to harmonize the brilliant discoveries in that field with the clinical features of disease, many old theories have been shaken or overthrown, and so it has come that, with the exception of "resolution," all the believed terminations of croupous pneumonia have been taken in doubt or even denied. Resolution being so common and so frequently observed at the bedside, it alone has been granted to be an established fact.

The termination in suppuration and abscess had finally also to be conceded, but critical examination has shown it to be much less frequent than was formerly held, and similar is it with termination in gangrene; it is however not to be denied that most cases with such termination are not typical, and that it is difficult to find cases furnishing unassailable evidence of its occurrence. Having myself notes of a clear case with such an ending, it may be well to place it on record.

W. T., age 60, farmer, with good family history as to lung disease, had enjoyed good health from infancy, never had any cough or disease of the respiratory organs. Having felt well as usual, and, after a day of hard labor in the harvest-field, he took a cold bath on the evening of August 7th, 1880, which was followed immediately by severe and prolonged chill, fever, stitch-like pain in the left lower lobe, dyspnœa and cough.

Called the following morning, I found the patient suffering very much, and there was short, frequent, dry cough, flushed face, pulse 112, temperature 104.2°, respiration 32. Atheroma of superficial arteries well marked, stomach irritable, rejecting food and drink. The patient was an habitual drinker of large quantities of hard cider, but never to intoxication.

Although pneumonia was suspected, physical evidence could not be made out, until the second day, when the characteristic expectoration also appeared. Consolidation seemed complete on the sixth day, extending over the whole of the left lower lobe. To this time the case had followed the usual course, but there was no crisis, the temperature gradually declining from the seventh to the fourteenth day, when it was normal in the morning, without, however, the occurrence of the looked-for amelioration in the general condition of the patient. The consolidation continued unchanged as did the bronchial respiration, but below the angle of scapula bubbling râles were noted; the expectoration lost its bloody character, became muco-purulent and profuse. This state continued until the sixteenth day, when the temperature became subnormal (96.5° F.) for a number of hours in the forenoon, followed by evening fever, and the same temperature curves were noted to the nineteenth day. Meanwhile the patient became more and more exhausted, despite the most careful feeding, use of stimulants, etc., the expectoration had now changed to a dirty gray color, was profuse and very offensive. The microscope revealed fragments of lung-tissue, crystals of fatty acids, pus-cells and blood pigment; the fever became again continuous with maximas of 102° to 103°; on the twenty-second day a cavity with gurgling was made out below the lower angle of the left scapula, the rest of the lung involved remained consolidated, râles appeared throughout and also in the upper lobe. For several days the patient had now irregular chills, heart-failure, with colliquative diarrhœa set in on the twenty-eighth, and the patient died on the thirtieth day.

Autopsy twelve hours after death showed the right lung and left upper lobe structurally intact, there was catarrh of the bronchi, and emphysema along the anterior border, the left lower lobe in a state of hepatisation, with a central cavity as large as a man's fist, with necrotic walls filled with greenish bloody horribly offensive pus and débris, and a large fragment of lung-tissue still slightly attached. The rest of this lobe was friable, and exuded a greenish purulent, and, in some sections, a bloody fluid from its cut surface, the pleura adherent. The pulmonary and bronchial arteries showed atheromatous changes in both lungs. The alveoli contained pus and cast-off epithelial cells, fibrinous plugs and blood pigment. The heart was flabby, the muscular fibres in a state of fatty degeneration, the coronary arteries atheromatous. The chest only, was examined.

That this case was one of primary croupous pneumonia seems beyond a reasonable doubt in view of the clinical symptoms, course of the disease and the autopsy; and it is interesting to observe, that the conditions favoring the occurrence of gangrene were all present and very apparent. Thus Cohnheim says, that previous vascular changes favor the occurrence of gangrene. Rindfleisch speaks of an exudation containing much blood as prone to lead to such a result. The patient had been a drinker, was much reduced by his inability to take nourishment in the early part of his disease, the feeble circulation became even more depressed on the cessation of fever and the subsequent occurrence of subnormal temperature, all favoring compression of the nutrient vessels by the exudate, and final stasis and death of the tissue under such conditions became a necessary consequence.

The termination in chronic inflammation and induration is a question of greatest interest and has often been debated. Considering, however, the strictly superficial process of pathological changes in a croupous pneumonia, in which everything is favorable for repair, on one hand, and the deep-seated lesions of a chronic pneumonia on the other hand, it is difficult to so explain the origin of the latter. Abscess or gangrene may be accounted for as local and circumscribed results due to the action of pathological germs and the cutting off of certain areas from the nutritive blood supply, and in the light of pathology of the present day, it is extremely probable that the heretofore observed chronic inflammation and induration following pneumonia of a croupous nature, were in fact true tubercular processes, owing their origin to the infection with the characteristic bacillus of Koch. Prior to Koch's discovery no strict differential diagnosis was possible, since the clinical symptoms of non-bacillary phthisis, or chronic pneumonia, and those of pulmonary tuberculosis are so identical that only the microscopic demonstration of the presence or continued absence of the characteristic germs, enables us to correctly diagnosticate the nature of the pathological process.

Aside from the possibility that latent tubercular deposits may have existed prior to the occurrence of the pneumonia, patients suffering, or slowly convalescing from the latter, are predisposed subjects to tubercular infection for the time being, by reason of the imparement of nutrition in general and of the affected lung in particular, and having paid particular attention to the subject, since we have a sure means of differential diagnosis, I have not observed a chronic pneumonia to follow the acute croupous form, but in three instances have seen croupous pneumonia followed by pulmonary tuberculosis, and it would seem very desirable that the cases of croupous pneumonia terminating in phthisis should be closely studied in the future, in order to determine whether or not chronic inflammation and induration may or may not have a place in the terminations of croupous pneumonia. It may therefore not be out of place if I put my three cases upon record.

Case 1.—Fanny C., age 22, clear family history and in previous good health, taken ill October 14th, 1884, with chill and fever followed by pain in right lower lobe and subsequent development of a typical croupous pneumonia. There was nothing of especial interest in the case, the sputum was examined twice during its acute stages: resolution with slow crisis occurred from the ninth day. Beyond a few catarrhal râles at the base, no abnormal physical evidence remained by the end of the second week, only the patient did not regain her general good health, although she was able to be up and out of doors. At the end of the month the occurrence of evening fever and rapid pulse caused me again to make an examination, in which catarrhal râles at the base of right lower lobe, and also slight relative dulness and harsh inspiration, together with lower position of right apex, were found to be present, a slight cough, with scant expectoration, had never quite left her, to my surprise the latter now contained numerous tubercle bacilli. The subsequent course of this case was the usual one, of pulmonary tuberculosis.

Case 2.—Mrs. E. W., age 48, farmer's wife, good family history, had not been ill since childhood, acquired a double croupous pneumonia January 16th, 1886. The case was a very severe one. Crisis on seventh day and convalescence for the two following weeks normal. The sputum, as is my custom, had been examined several times during the pneumonia, and again on the 23d day, when cough, with scant expectoration and slight fever reappeared, but with negative results as to tubercle bacilli. The returning cough became more severe, and did not yield permanently to the measures employed, and the case passed into the hands of another physician, who also failed to restore the patient. About the sixth week from the onset of the pneumonia I again examined the sputum, and tubercle bacilli were found on this, as well as on subsequent occasions; a cavity in left lower lobe was diagnosed about that time. This case also followed the usual course of pulmonary tuberculosis.

CASE 3.—Mr. S. D., age 30, of splendid physique and good family history, had recently effected a life insurance, the risk having been recommended as first-class by a careful and competent examiner. Had enjoyed the best of health to the time of his pneumonia, which occurred April 26th, 1887. It was of the croupous form, involved the left lower lobe, and followed the usual course until the fifth day, when general pleurisy developed on the same side, with serous effusion reaching by the ninth day to the second interspace, the heart was moderately displaced to the right, and acted very irregularly, any attempt to raise the patient caused fainting and nausea. The fluid (only 20 ozs.) was aspirated and examined microscopically; nothing suggestive of tubercular disease was found in it or in the sputum. There was no crisis, but a slow convalescence after aspiration, with subsidence of all symptoms excepting a slight hacking cough, which was attributed to the pleuritic thickening posterior of the left lung. His general health improved also until the sixth week; when evening fever increased cough and expectoration appeared. A few days later, or June 29th, he expectorated several mouthfuls of clear blood. Physical examination showed the left apex one-half inch below the right, harsh inspiration and crepitation in supra-spinous fossa, and also a shorter percussion note; fine catarrhal râles were present in lower lobe, and the sputum now contained tubercle bacilli.

Under appropriate management he subsequently improved, and by the succeeding winter active symptoms had disappeared, as had also the tubercle bacilli; there was no more expectoration. A small cavity below left clavicle was dry, and subsequently cicatrized. The patient is still alive and comparatively well, and may be considered as recovered.

According to my observations, limited indeed, it appears that pulmonary tuberculosis must be added to the terminations of croupous pneumonia, and further experience is to show, if non-bacillary phthisis or chronic inflammation and induration may properly be retained.

I desire in this connection to call attention to another termination, which, although perhaps not meriting to be made a distinct class, should find more distinct mention. I refer to the termination in "*Delayed Resolution*" in cases where the acute disease has followed a typical, often a very severe course, with regular crisis, yet resolution does not take place, although the general convalescence is satisfactory, and such resolution is delayed, not only for days or weeks, but for months, or even a year. Such cases are likely to escape the notice of the profession, the patient feeling himself well, and if we are consulted it is only under exceptional circumstances, on account of slight shortness of breath on exertion, or a trifling cough, with or without scant expectoration, to which the patient usually becomes accustomed, and pays little notice.

If we make a physical examination we find the signs of a pneumonia with impending resolution, bronchial breathing, crepitant and subcrepitant râles at end of inspiration, never any large bubbling râles, no signs of suppuration, or tissue destruction, no retraction, no tubercle bacilli, the temperature and pulse rate practically normal, appetite and digestion good, no loss of flesh. The patient feels himself well.

Continued observations of the local condition show, however, to the close observer, who keeps detailed records and diagrams, that there is some improvement noticeable after considerable intervals, both in the percussion note and the character of the respiratory sounds, the previous bronchial respiration in some localities having assumed a broncho-vesicular, or the latter a vesicular quality—resolution indeed, but extremely slow !

The unimpaired general health, these slow changes for the better, together with absence of elastic tissue and tubercle bacilli in the expectoration, with a history of croupous pneumonia, furnish the points in differential diagnosis from chronic pneumonia or pulmonary tuberculosis.

Such cases, by "one off his guard," are very apt to be diagnosed as phthisis, and result then in a cure under most any method of treatment which has the advantage of doing no serious harm to the patient !

My attention was first directed to this unusually delayed resolution many years ago in the clinic of Dr. von Niemeyer, where I had the opportunity of seeing and studying one of these cases. I have since observed three others, which I will briefly relate :

The first was in a young married woman, age 24, who had suffered from a croupous pneumonia of the left lung two months previous. She said that she consulted me, not because she was sick, but because her husband was worried by a little cough, which really gave her no trouble at all; there was only occasionally some slight expectoration, which she said contained little hard pieces. This was in 1879. Her general health appeared good, and she was able to attend to her social and domestic duties. While listening to her respiration I was struck with the exquisitely bronchial quality, confined strictly to the left upper lobe and with the flat percussion note over the same region. A few fine râles were noted at end of inspiration. Temperature 99°, pulse 88, respiration 28.

After several more examinations in the course of a week the condition was found unchanged, and, having not only forgotten my first case, but also neglected to make a microscopical examination of the sputum, I informed her husband of the presence of a chronic phthisical consolidation, and added a rather grave prognosis. In this opinion the family physician concurred. Her general health, however, remained good, and I found out my mistake several months later, when the local condition showed unmistakable evidence of improvement. A microscopical examination of sputum now showed, besides pus cells, broken down fibrinous coagula in state of fatty degeneration, no elastic tissue whatever. The diagnosis was therefore changed to delayed resolution and the prognosis modified accordingly. I had the satisfaction of seeing this lung clear up entirely, with the continuance of good health, in a little over a year from the time I was first consulted, and without any medication whatever.

Case 2d was a man 22 years of age, who had pneumonia in January, 1881, from which he came near dying. There was also a family history of phthisis on father's side, but the patient's physical appearance was faultless. From the history given me by his physician the pneumonia seemed to have followed a typical, but severe course; crisis on sixth day; convalescence good.

If no physical examination had been made by his physician during convalescence and frequently thereafter, probably no notice would ever have been taken of the fact that the lung did not clear up, for there was nothing whatever to attract attention to the remaining consolidation. Recently the parents had become alarmed at the statement of the physician in charge, that the lung remained solid, and another physician was consulted, who diagnosed phthisis. I saw him subsequently and four months after the pneumonia. He was well nourished, had no cough or expectoration, was a little short of breath on exercising; in right lower lobe typical bronchial respiration and bronchophony, percussion note board-like, crepitation at end of inspiration; temperature 99.2°, pulse 100, respiration 24. No sputum could be obtained for examination. I diagnosed "delayed resolution," and gave a favorable prognosis. At the suggestion of the family physician he was put upon local application of iodine, and received internally iodide of soda, 5 grs., three times a day. The subsequent course was uneventful, his health continued good, and the lung had cleared at the end of six months, or ten months from the date of the pneumonia.

Case 3 occurred in a young man, age 19, a butcher, who had passed through a croupous pneumonia of unusual severe type in October 1886. Crisis occurred on seventh day, reconvalescence was good, only a slight cough and scant expectoration remaining, for which he again consulted his physician about three months later, the cough having been aggravated by a fresh cold. A week later his physician sent him to me with a diagnosis of phthisis. His temperature while suffering from the cold was said to have been 102°, pulse 106, respiration 36. On his arrival his febrile symptoms had subsided, and besides the consolidation and bronchial respiration on left side, a few catarrhal râles were scattered through both lungs. The expectoration contained pus cells, epithelial cells undergoing fatty changes, and numerous small fragments of fibrinous coagula, very hard, and the patient claimed to have expectorated larger ones, and so hard that they were difficult to bite in two. No elastic tissue or tubercle bacilli were found in the sputum.

I had no doubt of the nature of this case, and the patient having come from a distance prepared to stay until he should get well, I determined to try the effects of the pneumatic cabinet, which seemed to prove highly advantageous, inasmuch as the expectoration increased promptly, containing many fibrinous casts and coagula, resorption going hand in hand. The patient was discharged cured of his cough and the lung was entirely clear at the end of the third week.

Other reports of cases of delayed resolution are scattered in medical literature, and Grisolle mentions it in his monograph on pneumonia, and gives points of differential diagnosis. An interesting case is found in the report of the *Berlin Charité* for 1880, in which death took place from erysipelas a month after the pneumonia, which had followed an ordinary course except that resolution did not take place. *Post-mortem*, the affected lung was found in a stage of red hepatization, of granular cut surface, the alveoli filled with hard fibrinous plugs; in some the contents were softer, containing also pus and epithelial cells in a state of fatty degeneration. Although this case had not extended so far in time as to make the reasoning from it entirely conclusive for identical pathological conditions in my three, and other reported cases, it however shows that the lung was in a state such as we would expect to find, had the patient died during the crisis, and that from that time until his death this coddition continued without producing any marked symptoms, or textural change.

The importance of recognizing such cases need hardly be urged in view of the errors in diagnosis and prognosis committed both by myself and others, and likely to be committed by any one unexpectedly meeting such a case, and to preserve others from similar errors is my chief object in calling attention to them.

As to the cause of this interesting condition I have little to offer, simply suggesting that the rule, that resolution is more rapid in the young and strong than in the old and weak, would not help us out; my cases and all those which I find recorded are under 30 years of age, and had enjoyed the best of health previously; and while the severity of the attack and the degree to which the patient became reduced previous to crisis may have had some influence, I think we must chiefly look for the cause in the character and consistency of the exudation, a very firm and hard character of which was very probable in my cases.

Such a solid condition is more likely to be found in the young and strong, and very rare at an advanced period of life, and other things being equal, the rapidity of absorption must depend upon the density of the material to be absorbed.

HYSTERO-NEUROSIS—THE ANNUAL ESSAY.

By I. W. Faison, M.D.

(Read before the Medical Society of North Carolina at Oxford May 27th, 1890.)

Mr. President and Gentlemen:

You will please allow me the pleasure of thanking you for this unsought honor of being your annual essayist. The subject to which I wish to call your attention is

HYSTERO-NEUROSIS.

In selecting this subject for your consideration I shall claim nothing very new, but something that I hope will interest you and something, perhaps, that may be of much benefit to some of you at least, as you follow your vocations in the future.

The first impression made, I suppose, is that I shall impose upon you a theoretical, high-flown article on this fancy subject, as it were. Instead of this I shall deal in plain, every-day, common-sense logic. It is a subject that has been of much interest to me for sometime, and as I go along in my professional life I see more and more to learn and to be of untold benefit to many of my patients.

What is hystero-neurosis? You all well know that the nerves that supply the uterus and ovaries in their terminal filaments are closely connected with the filaments that lead back to the central, spinal and sympathetic nervous systems. You furthermore know that the equilibrium of the utero-ovarian nervous system is essential to the general welfare of female life. Therefore by hystero-neurosis I mean that there are derangements and disorders in the uterus or ovaries sufficient to disturb the nervous system of these organs, which manifest themselves in the distant organs of the body that are free from structural lesions in their anatomical make-up. These disorders in uterus or ovaries may be either physiological or pathological.

The physiological causes are due to functional activities of the uterus and ovaries unduly increased both at the beginning and ending of the menstrual life and also during the entire menstrual periods of many women,

CASE 1.

In my note book I find a very interesting case that explains very fully and forcibly a neurosis of the bladder due to this very cause. A young lady who had suffered a good deal with malarial poison, showing itself in the intermittent fever type, a few years after the functional developments of puberty. After the cessation of the malarial trouble she began to complain with painful menstruations, and as she grew older the pains increased and the flow became more scanty. Under the sedative plan of treatment she got along badly at best. After awhile she was married, and I hoped that she would possibly get better, still the trouble continued for nearly two years. At this time the bladder began to resist so much encroachment, and at each period she suffered with most violent and excruciating tenesmus of the bladder, with bloody urine. As soon as the time for the period passed the bladder symptoms would subside. Up to this time examination by vagina had been refused. On examination I found stenosis of the os uteri to almost occlusion, with deep red patches of erosion around the cervix. The catamenial flow being retarded, though scanty as it was, and the congestion of the uterus pressing on the filaments reflected to the bladder and produced the violent symptoms and excruciating pains. Probably you gentlemen who do not live in a malarial section will not readily agree with me at the suggestion of malaria bearing any part in the causes of such troubles. Still I am thoroughly convinced that such is the fact in a great many cases, while I freely admit that such cases occur frequently where no malaria abounds.

In the pathological causes of these neuroses this same cause (malaria) plays even a more important and unpleasant roll. I performed rapid divulsion of the entire cervical canal; curetted the cavity both of the cervix and the entire cavity of the uterus; cauterized the surface completely with pure carbolic acid; placed a perforated hard rubber stem (Goelett's) and let it remain for two days; took it out, swabbed out the uterus and placed a larger size stem and retained for one week; during the whole time I kept her strictly in bed in the recumbent position, which is exceedingly important. This treatment completely relieved my patient, both of the menstrual trouble and the neurosis of the bladder, and has had no return of the symptoms now for over a year.

Now, if the disorders and derangements of early menstruation play such an important part in establishing the causes for these reflex neuroses. Is it not our duty as professional men to trouble ourselves more than heretofore and instruct the mothers of the extreme importance of paying every necessary care and attention to their daughters that this important function may be regularly established. I dare say that a great many young girls never hear of this function until at some unexpected moment they are abashed at its sudden appearance. As a rule, if this important function is not thoroughly established, it will play quite a part as a physiological cause in developing reflex neuroses. The pregnant uterus during its functional activity, as a physiological cause, produces many and varied neuroses. The solar plexus of the sympathetic system and the pneumogastric nerve are the sources through which many of these neuroses are manifested. The irritated, retching stomach in morning sickness, torpid liver, painful and palpitating heart, shortness of breath simulating asthma, free flow of saliva from the irritated glands, intense desire to sleep during daytime, are some of them, and have been looked upon from time immemorial as the doubtful signs of pregnancy. Will treatment directed to these neuroses *per se* be of much material benefit? I can say, most emphatically, *no*, for too many times have my hopes been disappointed after every effort had failed, and I am satisfied that most of you will readily agree with me.

The pathological causes seated in the uterus and ovaries and producing so many reflex troubles are of much more significance to us as practitioners. These causes are due to structural changes in the tissues themselves. Case No. 2 will correctly and vividly explain the points I wish to impress.

CASE 2.

Married woman, age 33. Had given birth to three living children; two years later, at the third month, had an abortion; since then no conception, but had suffered with dysmenorrhœa. She was suffering with an intense and persistent pain around and about the heart and lower region of the left chest and an abiding faith in a serious heart disease, and almost had her day fixed to die. She was and had been suffering with dyspepsia. I suggested that it was the dyspepsia and reflex neuralgia around the heart, and told her I would treat her for that. She, being an intelligent woman, said that she had been thoroughly treated for that trouble without benefit, and if I could find nothing else the matter she would tough it out and die without medicine. I then realized the fact that I must do something. I asked for a vaginal examination and found a large subinvoluted uterus, retroverted, and extensive abrasions around the cervix and tenderness over the left ovary. I stretched the internal os, curetted the internal cavity and cauterized with pure carbolic acid, replaced the uterus at once and held them with a pessary; used tampons of boro-glyceride and glycerine (2 ℥ to Oj.) and tonics, with pure diet. The pains almost at once began to improve. After the third month she conceived and her troubles all subsided and she pronounced herself a happy woman.

CASE 3.

This case shows where physiological and pathological causes at different times produce the same reflex manifestations :

Married woman, age 47. At 15, when her menstrual life began, it was scanty and painful for four years, and during this time she suffered with asthma. After that time her periods became full and free and the asthma entirely disappeared; at 35 she married and gave birth to two children and one abortion; at 41 her menses began to be irregular and the asthma at once returned. She was treated by two physicians with every remedy for asthma known to medical men, with but slight palliative effects. At this time she came under my care, and from the history as related I examined her per vagina. I found a hard fibroid tumor the size of a small orange in the posterior wall of uterus, dragging the fundus backward, with a small contracted canal through the cervix, and erosions of the cervix. I dilated the canal, curetted the cavity and cauterized with pure carbolic acid. Gave free and repeated doses of ergot and morphine, which at once ameliorated the asthmatic attacks. The menstrual flow became more regular and free after the treatment, and the asthma troubled her but very slightly. I have kept up the ergot with the view of retarding the growth of the tumor until the flow shall cease, and then I hope it will lie dormant and produce no further trouble. The morphine cuts short the nervous impression and the asthmatic attack is avoided, and my patient is going on through life in rather a comfortable way for an asthmatic. Thus you will notice the physiological cause producing asthma relieved by nature, and at the menopause in same patient from a pathological cause the identical same neurosis produced. If after the menopause is passed and the asthma continues to a degree sufficient to trouble her, then the galvanic puncture, as used by Apostoli, can be tried.

The most of these reflex neuroses are carried through the filaments of the sympathetic nervous system, as the filaments of the ganglionic system ramify and connect so closely with the filaments of the utero-ovarian nervous system.

The solar plexus being the largest of the ganglionic system, the impressions are readily felt there, and this is established by the fact that at almost every derangement of the uterus at once the stomach or liver begins its sympathy, and as the filaments of the sympathetic system blend so freely with every other system, also the glands of every kind, and all other organs of the body, you can readily perceive how these neuroses may be manifested in them all. Whenever from increased functional or pathological disturbances in the utero-ovarian system shock is produced, it is flashed over the whole organism, and these neuroses are manifested either in a nauseated stomach, torpid liver, painful and palpitating heart, asthmatic breathing, and the effects on the brain are such that our patients complain of unpleasant fullness on top of the head and some pain in back of neck and feign insanity, mostly of the melancholic variety. These reflex neuroses of the brain are carried then also through the cerebro-spinal system. The circulation is also more or less controlled by this same influence, and when this impression dilates the arterioles, redness of the skin and hot flushes in the face, and when contraction follows coldness of the surface and clammy, cold perspirations ensue, especially over the hands and feet. We also note the impression on the alimentary canal in the form of gaseous distention, constipation and diarrhœa, that so frequently, and I would say almost always, accompany uterine troubles of much structural change.

What are the causes of these reflex neuroses? We must look to the uterus or ovaries for them—either from physiological or pathological causes. For a long time the ovaries have been looked upon as the seat of disease for such reflex troubles, and just a few years ago it was exceedingly fashionable in the larger cities to unsex every woman that even suspicion would allow; but now I am glad to say that wiser counsel prevails, and the tide has turned against such a wholesale onslaught of such an important organ. The office of the uterus is such that often structural changes are produced in spite of the most extreme care, and hence it is to this organ that, in my opinion, is the seat of the disease, that shocks the nervous system and produces the many unpleasant neuroses. These structural changes are lacerations of the cervix, subinvolutions with or without displacements, displacements of several forms, abrasions of the cervix and catarrhal troubles of the cervical canal and cavity of the uterus. While I am free to admit that the ovaries are the cause, in a great many cases, and deserved in many cases of no reflex, still I am fully persuaded that they are not guilty of all that they are accused of. So, according to my experience, and after due consideration of the reading of articles on this subject, I am of the opinion that the uterus is decidedly more frequently the seat of the disease that causes these reflex neuroses.

The diagnosis is not so easily determined as might at first be surmised. It must be largely made by exclusion—examine the organ thoroughly in which the trouble is—to know whether there is any structural lesion present or not. In hystero-neurosis there will be no structural lesion in the organ of the distant manifestation. Decide upon whether or not you have a true local neuralgia to contend with—the temperature is always normal. The symptoms present will always be severe and decidedly out of proportion to what would appear if the trouble was a local one. Examine carefully the uterus and ovaries if no trouble, then you can at once discard the idea of reflex hystero-neurosis. If there is trouble, and able to discover any local trouble with the organ affected, with exaggerated symptoms, you can decide that you have a neurosis to contend with. Use of sedative remedies will aid you materially, as they do so little good in neuroses of this nature.

The progress is generally favorable. At the same time it must be guarded till you have established fully the cause and can remedy it. Relief may come suddenly or slowly, as in the first case there was relief almost at once, in the second in a short while, and in the third much relief, but still not a complete cure. I have seen violent retchings of the stomach cease in one night after dilatation of the external os and cautery with carbolic acid, still I have seen some that nothing but emptying the uterus would relieve. I must insist that to insure the prognosis favorable you must find the cause, and when the cause is removed, then, and not till then, can you expect to see the neuroses disappear.

The treatment is both palliative and curative. The palliative remedies are nervines, tonics, sedatives and galvanism, which should always be tried freely in young ladies and married women. This should be applied as directly to the filaments of the uterine nerves as possible, both through the pelvis from the sacrum to the front hypogastric lower portion of the abdomen and through the vagina. As a sedative you will find this very beneficial. If the above treatment be not successful, then you must correct any changes in the uterus or ovaries that may be present before you can look for a cure.

The neuroses from a pregnant uterus must be treated as to the cause. If pathological, such as congestion of the cervix, local bleeding will do good, and the causes, of whatever nature, at the cervix, must be treated with dilatation or cauterizing the cervix if it should need it. I prefer the carbolic acid to cauterize the cervix and its canal. In a good many cases I have seen much benefit follow one application. If from physiological causes, as distention of the uterus, as gestation goes on, nothing much can be done but the use of bromides and sedatives, unless it becomes necessary to empty the cavity, which will relieve the neurosis *most* generally. If from stenosis of the cervix, and congestion, rapid divulsion and treatment of the cervix, as reported in case No. 1.

The pathological changes in the tissues should be treated as indicated to bring about a cure in the parts, and as you will find indicated in the text-books. The lacerations should be operated on and united, the displacements replaced and kept in *situ* as best you can, with proper pessaries of whatever kind that will meet the end aimed at. Catarrhal diseases of the cervix and the body of the uterus should be treated with the curette (I always prefer the sharp) and cauterizing with carbolic acid, nitric acid and nitrate of silver (I prefer the carbolic acid), unless there is much enlargement of the uterus from subinvolution, then the fuming nitric acid, and apply it every ten or twelve days. The local manifestations need but little attention, still I would advise some local treatment, as liniments or plasters and sedatives, more to allay the expectations and anxieties of the patient than for any expected good. Cure the causes, and the reflexes will take care of themselves.

*ARE THE MASSES PASSED AFTER INGESTION OF LARGE DOSES OF SWEET OIL GALL-STONES?—SUBJECT FOR DISCUSSION BEFORE THE MEDICAL SOCIETY OF NORTH CAROLINA.

By Thos. S. Burbank, M.D., Wilmington, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

The relief given by the administration of large doses of sweet oil in hepatic colic and the subsequent passage of dark green masses led early observers to relegate a specific action to this remedy in causing the expulsion of gall-stones.

At this time the physiological action of remedies was but little known and chemical analysis supplemented by visual observation; therapeutical investigation, in the hands of empiricists, resulted in each remedy having a selective and specific action ascribed; consequently they thought the masses found in dejections after large doses of sweet oil resembling gall-stones were gall-stones. Later investigators, finding these masses after giving the oil, and discovering that the diffusion of fat was accomplished by the bile, that fats were colloidal substances, therefore possessing feeble power of osmosis, that oil would pass through a membrane moistened with bile with great facility, and that the blood of the portal vein was by far richer in fat than the blood of arteries and systemic veins, thought the oil had a selective action for the liver and that the masses were gall-stones.

"The chief chemical constituent of human gall-stones is cholesterin, other constituents are the bile pigments, either by themselves or in combination with lime and very small quantities of the bile acids also in combination with lime, their color varies from white to black." Cholesterin crystallizes from gall-stones after solution in boiling alcohol.

The chief chemical constituents of the masses are soap and oil, other constituents, bile pigments and very small quantities of cholesterin, their color is dark green. Cholesterin crystallizes from masses

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*See discussion of this topic in June Journal.

by first evaporating to dryness and pulverizing, treating with ether, filtering and evaporating, adding solution of caustic potash, washing on filter with distilled water, drying and again adding ether, evaporating and dissolving in boiling alcohol.

The ease with which we obtain cholesterin from gall-stones and the quantity they contain (70 to 80 per cent.) and the difficulty encountered in obtaining it from the masses, and the quantity they contain (less than 1 per cent.) prove conclusively that the masses are not gall-stones; and the palpation of the abdomen of a patient, with thin walls, who has taken large doses of sweet oil for hepatic colic, reveals gall-stones in gall-bladder. Subjoined are four illustrative cases of the administration of the large doses of sweet oil:

CASE 1.

Patient—Bilious temperament, no history of hepatic colic; administered goblet of sweet oil on empty stomach at night, and repeated dose the following morning; evacuations contained large quantities of masses dark green and whitish in color.

CASE 2.

Patient—Sanguineous temperament; no history of hepatic colic; oil administered as in No. 1; result same, though quantities smaller.

CASE 3.

Patient—Lymphatic temperament; no history of hepatic colic; oil given as before; result as in No. 2.

CASE 4.

Patient—Bilious temperament; no history of hepatic colic; oil given as in others; no masses in evacuations.

In the first three cases oil preceded by hyd. chl. mite; in No. 4 no calomel given.

REPORT OF THE SECTION ON MATERIA MEDICA AND THERAPEUTICS TO MEDICAL SOCIETY OF NORTH CAROLINA.

By J. W. McGee, Jr., M.D., assisted by E. H. McCullers, M.D.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

During the past twelve months very little has transpired of real therapeutic value, but since our last meeting additional information has been furnished as to the action of Sulphonal and Phenacetine, as well as several new hypnotics and antithermics recently introduced.

SULPHONAL.

While we find a goodly number advocating the use of sulphonal as a hypnotic, its disadvantages are such as to prevent its ever becoming a therapeutic agent of much value. Among its many disadvantages may be mentioned :

1. Slowness of action in producing sleep.
2. The tendency which its hypnotic action has to persist during the succeeding day.
3. Difficulty in determining individual dose.
4. Unpleasant secondary effects, viz : excitement, temporary delusions, nausea, dizziness, headache, ringing in the ears, vomiting, sense of fatigue, of depression and of confusion of mind, disturbance of gait, sense of drunkenness, intense thirst and great dryness of mouth, erythematous eruption, aphasia, diarrhœa, etc.
5. Uncertain hypnotic action.

An especially annoying feature in the action of the drug, appears to be that, while in some cases large doses may be taken without producing any effect; in others small doses produce the most violent toxic symptoms; while again even those cases which in some instances have proved themselves unaffected by large doses of the remedy, and in whom it may have previously produced satisfactory sleep, suddenly will be violently poisoned by doses which they had taken previously with impunity. Exhaustion, diarrhœa, vomiting and collapse follow doses which had previously been almost inactive. It is claimed to have no deleterious action on digestion, secretion, circulation or respiration. Is tasteless, has no odor, and is easy of administration.

PHENACETINE.

Phenacetine has evidently borne the test of time and use better than sulphonal. It is said to be more valuable as an analgesic than as an antipyretic, and is especially valuable in the treatment of rheumatic endocarditis and nervous polyuria, as well as in whooping-cough. In the latter disease cases in which, before the employment of this drug, the paroxysms of coughing occurred ten to fifteen times daily, under treatment with this remedy were reduced considerably, and in some cases disappeared in a very few days, only occurring occasionally at night, after the use of the drug was suspendsd. In the case of a child three months old, with severe laryngeal spasm of hourly recurrence, after atropine, antipyrine, quinine and other remedies, so often employed in this disease, had failed, half grain doses of phenacetine in 10 drops of glycerine, administered every four hours, gave almost immediate relief.

Phenacetine is an antithermic, but it is chiefly as an analgesic that it is prescribed, though it is claimed to be an antipyretic of reliable action, producing no nausea, vomiting, cyanosis or syncope.

It is recommended as an antineuralgic in 15-grain doses and in all cases of vaso-motor neuroses and in locomotor ataxia, but its insolubility renders it in a marked degree inferior to other members of the aromatic series and in particular to antipyrine.

CHLORALAMIDE.

While, at a first glance, it may seem quite superfluous to add another to the already long list of hypnotics, closer observation will show that this is not the case. Whilst, on the one hand, many like promptness in action, on the other hand many of those whose hypnotic action is rapid, are accompanied by such grave symptoms that their use can only be resorted to with extreme caution. The actual number of reliable, efficient, and, at the same time, safe hypnotics, is very small. The introduction of a new one, which promises to combine the above named desirable properties, should be joyfully welcomed rather than be regarded as a superfluous addition.

Among many recent hypnotics chloralamide is brought forward with less than the usual flourish of trumpets which heralds the birth of a new drug, yet the opinions of a number of observers seem to indicate that chloramide promises to be a valuable addition to our list of new drugs.

Experiments already made with it indicate. its adaptability in all cases of sleeplessness due to nervous excitement, neurasthenia, phthisis, heart disease, spinal disease, and all cases of insomnia not accompanied by acute pains.

Being insoluble in ordinary menstrua, it should probably be given in solution with some form of spirit, as wine or whiskey.

A number of cases have been reported in which chloralamide was administered by enema with satisfactory results, no irritation being produced, even after frequent repetition, though its action was slower than when given by the mouth. It is best to give it about two hours after eating, and as its action is somewhat tardy, it should be given from one-half to two hours before the desired sleep is expected to begin. The usual dose is 15 to 60 grains, though rarely should the dose exceed 30 to 45 grains, at very serious and annoying after effects have followed the administration of large doses, as was the case of two healthy young women who received a dose of 60 grains each in the afternoon; each in an hour complained of dizziness and great excitement, while one complained of giddiness and staggering, with severe headache in the posterior part of the head, nausea and an inclination to vomit. In one of these cases the stomach was washed out and found to be empty, though this procedure did not succeed in arresting nausea, showing that chloralamide is absorbed and that the effect must be due to the presence of the substance in the blood, by which the nervous system is effected.

Ordinarily large doses do not affect the heart and circulation, although it has been noticed that the frequency of the pulse is slightly increased. These symptoms, it is claimed, are not of long duration, and are less marked than those following the exhibition of chloral. The sleep produced by chloralamide is said to be deeper than that produced by chloral, and will vary according to individual peculiarity from six to ten hours.

Chloralamide is a hypnotic pure and simple, and does not partake of the properties of an anodyne.

In diseased conditions of the system chloralamide seems to be borne with a remarkable degree of tolerance; although some unfavorable results have been reported, few cases are on record in which it was wholly useless or in which serious after effects were observed.

Chloralamide has been used in a large number of diseases, both organic and functional, when a hypnotic was required, and is adapted to all cases of insomnia, but is especially valuable in those cases due to organic disease in which other hypnotics are often contraindicated, and that class of cases characterized by unusual excitement, as diseases of the circulatory system, respiratory neuroses, diseases of the nervous system, as well as the sleeplessness which occur in the course of other diseases, as rheumatism, typhoid fever, and organic and functional disorders of the alimentary tract, as ulcer, cancer, chronic dyspepsia, etc.

It is not to be regarded, however, as a hypnotic which will invariably succeed in producing sleep, since in many instances it may entirely fail, in others sleep may be late in making its appearance, while in certain cases the after effects may be decidedly annoying.

Two cases are reported in which chloralamide is claimed to have an almost specific action on chorea. One case, a boy of 11 years of age, was cured in five days by 15 grains of the drug three times daily, the other, the case of a girl, after receiving no benefit from other forms of treatment, was afforded relief in eight days, but this claim is as yet based on insufficient testimony to have much weight.

When administered in phthisis it was found that the troublesome night-sweats disappeared.

Chloralamide has been experimented with by a large number of observers in a great many different diseased conditions, and while no unpleasant after effects were noticed by many authorities, no disturbance of the heart, respiration, temperature, kidneys or appetite, a few have occasionally found slight headache upon waking, or with lassitude and a desire to sleep during the next morning.

Other unusual effects may be noted, as vertigo, thirst, nausea, dryness of the mouth, delirium, rapid and feeble pulse. No accidents have been announced thus far, and but few unfavorable reports, even with the very numerous and varied classes of diseases treated, and everything points to its favorable reception at the hands of the profession.

It is to be hoped that continued investigation will prove equally satisfactory and that in chloralamide we may find a safe, reliable and efficient hypnotic.

SOMNAL.

Somnal is said to be a mixture of alcohol, chloral and urethan. It is claimed to exercise no unfavorable action on the pulse, respiration or temperature. The dose is stated to be thirty drops in syrup. A well-known therapeutist says: "Somnal is a good hypnotic, and has the desired effect in *most* cases." Other observers say it has a hypnotic action in about 30 per cent. of cases, and that it has an undesirable, and often very dangerous, secondary action on the heart. It is also claimed that the chemical statements made by its inventor are incorrect.

URAL.

Ural is found by a combination of chloral and urethan. It is claimed to produce no disagreeable accidents, and in therapeutic doses no disturbance of blood-pressure. No discomfort or distress results on waking from sleep produced by it. It is said to be possessed of only moderate hypnotic qualities and may be used several days without inconvenience. Large doses of the drug produces loss of mobility with insensibility and unconsciousness. Respirations are increased in depth and frequency, but the blood-pressure is maintained at the normal point. Temperature is lowered and diaphoresis and diuresis sometimes occur. It is best administered in cases of cardiac disease free from great dyspnœa. It seems to have no toxic effect except in large doses. In some cases it has caused nausea and gastric distress. The usual dose is 15 to 30 grs.

HYDRACETINE.

Hydracetine is the active principle of pyrodin, being five times more active. Occurs in white, odorless and almost tasteless powder. It has been employed in cases of typhoid fever, pneumonia, phthisis, scarlatina, erysipelas, acute milliary tuberculosis, etc., and found to be a powerful antithermic. Administered in doses of 1½ to 2½ grains daily it produced within two or three hours a reduction of temperature of from 1½° to 2°, and in some instances even 3°. This reduction of temperature, however, is only transient, and after four or five hours the original temperature is regained.

Hydracetine produces diminution in frequency of pulse and respiration with production of profuse perspiration. Like other antithermic remedies it controls the pains of acute rheumatism. In divided doses of 1½ grains daily it causes remissions for several hours. Employed in the form of an ointment of 10 per cent. of hydracetine, favorable action is produced in psoriasis, while it is also useful as an analgesic in cases of sciatica. Hydracetine may be used freely as an external application, but great care must be used in its internal administration. Not more than 1½ grains should be given at a single dose, preferably ¾ of a grain every hour. Even then the treatment should not continue longer than three days.

METHACETINE.

Methacetine occurs in shining, white, odorless and almost tasteless scales. It is an active antipyretic, three, four, or even five degrees being lost within a few hours after the administration of a therapeutic dose. In doses of 2 or 3 grains given to a child it exerts a marked antithermic action, the reduction of temperature being gradually produced, and remaining at the lowest point several hours, then gradually increasing. Frequently marked perspiration is produced within an hour after its administration. It has been employed in pulmonary tuberculosis, tubercular meningitis and in pneumonia, the patients all being children. In one case it produced slight collapse, but never vomiting, ringing in the ears, vertigo or erythema. In its action methacetine is said to correspond in every respect to phenacetine.

EXALGINE.

Exalgine, a compound obtained from one of the products of the destructive distillation of coal tar, presents itself in the form of fine needles or large white tablets. It seems closely allied to antipyrine, though its effects on the sensorium are more marked than the latter, while it exerts a less marked action as an antipyretic. It is best administered in powder or some alcoholic solution flavored with an aromatic. The usual dose is 4 to 6 grains given at once, or 6 to 12 grains given in twenty-four hours. The analgesic effect is claimed to be very marked in all forms of neuralgia, especially congestive and dental neuralgia, also including visceral neuralgia, in which it is even claimed to be superior to antipyrine. It is said that no gastro-intestinal irritation, rash or cyanosis has been noticed after its administration. It is also noted that after the physiological effect of the drug has been developed, while painful sensations are destroyed, the tactile sense remains unaltered.

Exalgine is eliminated by the urine, upon the quantity of which it exerts a marked influence, diminishing the qnantity of the secretion. In diabetes it diminishes both the quantity of urine and sugar eliminated.

Dr. Dujardin-Beaumetz says of exalgine: "After antipyrine, and almost at an equal rank from an analgesic point of view, I place methyl acetanalid (exalgine), and if this methyl compound were more soluble, it would certainly deserve to occupy the first place, and this, because it is more active and because under its influence we have never seen an eruption appear." Exalgine given in doses of 4 to 12 grains modifies considerably the pain of a patient suffering with neuralgia or any other painful affection. In these doses it is said that it has never produced any other trouble than slight vertigo and ringing in the ears.

Exalgine is poisonous when administered in doses equivalent to 7 grains to every two pounds of body weight, so that in ordinary therapeutic doses it may be stated to be absolutely inoffensive, and that this new remedy is less dangerous than aconitine, digataline and all the alkaloids frequently given to patients.

Exalgine is especially valuable from the fact that it does not irritate the stomach, and the dose required is small

References.—Therapeutic Gazette, "Notes on New Remedies,"; *Pharmaceutical Record*, *National Druggist*, *American Druggist*, *Medical Record*, *Medical and Surgical Reporter*.

PERPLEXING SYMPTOMS ARISING DURING TREATMENT OF A CASE OF OPIUM HABIT—WHAT NAME SHALL BE GIVEN TO THE GROUP OF SYMPTOMS?

By R. J. Noble, M.D.

(Read before the Medical Society of North Carolina at Oxford May 27th, 1890.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

I beg leave to report the symptoms arising during the treatment of an opium-eater for the cure of the habit. There has been a question in my mind as to what name should be given to the group of symptoms that arose in this case. If any member of the Society can enlighten me I would be glad to hear from him.

On the 8th of May, 1889, I was called to Mrs. W., who I found suffering with supra-orbital neuralgia. She requested me to give her a hypodermic injection of morphine, which I did, giving her ½ grain of morphine and 1-200 grain of sulphate of atropia. Two hours after I repeated the injection, as the other did not relieve her a particle. The second injection relieved her for some hours. She had bromidia and bromide potassium given her freely, also morphine hypodermically twice or three times a day until the 16th, when she was well enough to do without the morphine.

June 2d I was called again, when the same treatment was given her except that the morphine was given in doses of 1½ grains three times a day hypodermically. This was continued until the 15th of June, when only two doses of 1½ grains each were given, and, as he was so much better the next day, no more was given her. I had told her husband that she was an opium-eater, showing him the doses of morphine before giving them. He on her recovery from that attack asked her if she was not taking morphine, and, after a good deal of coaxing and argument, she admitted that she was, and had been for two or three years.

About the 1st of September he came to me telling me that his wife wished me to see her, that she would put herself in my hands and if I would not cut off the morphine too suddenly she would, with my help, quit the habit. I asked her how much she was taking daily. Having no morphine she took some quinine and showed me about the size dose that she was taking, which I thought to be about 1½ grains three times a day. I weighed out 10 grains of morphine, put it in an ounce of water, telling her to take one teaspoonful three times a day. She took it in two days. I expected her to take it in eight days, but she filled the spoon as full as it could be filled, only getting six teaspoonfulls to the ounce, thereby taking 5 grains a day. I saw her often, and knew she was not taking her usual quantity. Her husband told me that as the time for her dose drew near she was nervous and was always anxious and ready for it.

The third day I put 8 grains in an ounce of water and told her not to fill the spoon so full, but she took it in two days. She was so nervous and complained so much of pain in her abdomen, especially in the left iliac region, that I gave the same on the fifth and sixth days. Though no better, I reduced the morphine on the seventh day to 7 grains to the ounce—dose as before. On the ninth day to 6 grains to the ounce. I now told her husband to get a graduated medicine glass so that she would get eight doses to the ounce instead of six, but the glass not being graduated correctly, he made ten doses to the ounce. She was now complaining of some pains in her arms, legs, abdomen, especially over the left ovary, and head. The room was darkened and everything kept quiet. Bromide of potassium was given her in doses of 60 to 80 grains every four hours. One and a half drachms of bromidia was given at bedtime with sometimes a dose during the day and injections of ½ grain of morphine three times a day soon got her straight again. On the twelfth day I put 6 grains in eight ounces of water, giving her one ounce at the dose. She was very nervous and restless, but said she must hold out to the end and not to give her any more than I was.

On the 20th of September diarrhœa set in with a return of the supra-orbital neuralgia. I gave her a few doses of paregoric and syrup of rhubarb, which controlled the diarrhœa. She continued taking ¾ of a grain of morphine three times a day for two weeks. Then I put 5 grains to the eight ounces, giving one ounce three times a day. Continued that until the 12th of October. I saw her two or three times a day, giving her all the encouragement I could to hold out to the end.

On the 12th of October she said she had slept but little the night before, begged me for a little morphine, as the pains in her head and bowels were so severe that she thought they would kill her. She was now taking 1½ grains of morphine daily in three doses (½ grain each) per orem. I gave her ½ grain hypodermically, which quieted her for some three or four hours. My next injection was ⅝ of a grain. The third for the day was ½ grain, making a total of 1⅝ grains for the twenty-four hours, none being given by the mouth.

From the 12th to the 20th there was but little change in her condition; some days I would get down to 1 gr. others going back to 1½ grs. per day.

About the 21st she began to have hallucinations, and, although the walls of her room were perfectly white, she imagined they were checkered and striped; she could see ropes and threads crossing each other from different parts of the room. This I attributed to the effect of the cannabis indica in the bromidia which she had been taking freely—I suppose nearly, if not quite, half an ounce daily. So the bromidia was stopped and the following given instead:

℞.—Hydrate chloral................ ℈iv.
Potass. bromide................ ℈viij.
Morph. sulph................... gr. ij.
Aquæ........................ ℥ij.
M. Sig. One Dessert-spoonful as required.

This, with the injections of from 1 to 1½ grs. of morphine daily, was my treatment with little or no improvement until the 24th, her mind gradually getting worse, delirious all the time. Her temperature never went above 99½°, though her pulse went to 114. Her temperature was taken twice daily.

On the 24th Dr. J. B. Beckwith was called in consultation. He advised giving her 10-drop doses of tincture avenæ sativa three times a day and 1 drachm of bromide of sodium every four hours, increasing the doses 10 grs. every other dose until 2 drachms were taken, which I did. She was better on the 25th. She continued taking the regular doses of morphine.

On the 26th her bowels acted several times—she was naturally of a constipated habit. The morphine was given in ¼ and ½ gr. doses three times.

On the 27th her bowels acted ten or twelve times—large watery actions. Morphine given as on the 26th.

On the 28th her bowels were worse, acting every hour or two with considerable tenesmus. Morphine given as on the 26th.

At bedtime I gave a suppository of 1 gr. each of pulverized opium and plumbi acetas. There was no movement of her bowels until the next day. There was now steady improvement, though the quantity of morphine was not diminished any per orem. (None was given hypodermically); three doses of ½ gr. each being given. The hallucinations had almost stopped, mind clear, and she was a great deal stronger. She was well enough on the afternoon of November 1st to have a dress fitted; but on the night of November 1st the hallucinations were as bad as ever, she being unable to sleep more than one hour during the night.

I saw her early on the morning of the 2d. She was semi-delirious; pulse 86; temperature 99°; tongue slightly furred; severe pain in her head; could not bear the light; considerable subsultus; very restless; had great difficulty in swallowing; complained of dryness of her throat. During the day I only gave ¾ gr. of morphine hypodermically. Gave her two drop doses of tincture of aconite root every two hours. She could sleep but a few minutes at a time during the day or night. Found her condition worse in every respect on the morning of the 3d. I asked for counsel and Dr. P. E. Hines was telegraphed for, but did not come until the 4th.

She would lie still for an hour or more at times during the day, but she could not sleep. There was more difficulty in swallowing, she could not swallow half a teaspoonful of water without it strangling her; could not speak above a whisper, and not half the time could you understand what she was trying to say. I gave her only two doses of morphine during the day of ¼ grain each hypodermically. I gave her about one ounce of sweet milk during the day. The morphine kept her quiet. I mean by "kept her quiet" that it kept her from tossing and turning, which she did until I would give the injection of morphine, but the morphine did not stop the spasmodic jerking of the legs and arms or the constant subsultus and picking at the bedclothes. During the day her pulse was from 72 to 76 and her temperature in axilla 99°.

On the morning of the 4th I gave her ⅜ gr. of morphine as she was very restless, sleeping none, except from three to four, during the night. Her general condition was worse, tongue with a heavy white fur and dry. I gave the morphine about 5 a. m.. After I gave the morphine she seemed to get worse, was seemingly in a comatose condition; could not speak at all, and did not speak again or try to speak until the morning of the 6th. I could put my finger on her eye without her noticing it; her pupils were dilated and did not contract on having a lighted match held before them.

Dr. Hines arrived at 11 a. m. He advised me to give small doses of morphine as required, with all the nourishment I could get her to take, as he thought her condition due to the withdrawal of the morphine and not to meningitis, as I feared.

I was called to a case of labor a 5 p. m., and not knowing when I would return, I gave her hypodermically ¼ gr. of morphine, not that she really needed it, but I thought she might need it before my return, and that ¼ gr. of morphine at 5 p. m. on the 4th was the last dose I gave her.

I returned about 12 p. m. Her condition was about as I left her, except that her bowels and bladder had acted involuntarily. I then began giving her 5-drop doses of tincture of belladonna every two hours.

I saw her early the next morning. All the difference I could see was that her eyes were sensitive to light and touch. I continued the tincture of belladonna in 5-drop doses for two or three days.

Her bowels acted several times during the day and at 6 p. m. I gave her 10 grs. of calomel by putting it on her tongue dry, and giving a little water afterwards, which acted freely.

On the morning of the 6th she whispered her husband's name. Although she knew what she wanted to do, she had no control of her bowels or bladder until the night of the 7th.

From the night of the 2d until the 6th it was almost impossible for her to swallow medicine or nourishment of any kind. We could only give her a few drops of milk or water every hour or two.

On the 8th her tongue was dry, red and cracked. I gave her 10 drops of aromatic sulphuric acid. The next morning it was moist and looked a great deal better.

On the 7th I began giving her the following at a dose three times a day :

℞.—Tr. nux. vom.	gtt. x.
Acid. phos. dil.	gtt. xx.
Syr. pruni., virgin.	℥ ss.

Also the following, as required :

℞.—Tr. hyosciam.	℥ ss.
Tr. lupulin.	ʒ i.
Potass. brom.	℈ i.
Aquæ menth pip.	℥ ss.

As she could now swallow we began to feed her with milk and water, beef tea, eggs (soft-boiled), and milk-toast. She improved steadily, not asking for, or getting, any morphine.

She tells me that she has not wanted or felt the need of morphine since her recovery; and I do not believe she has had any, as her husband has kept a strict watch over her.

She did not, apparently, lose any in weight while she was sick.

Suggestion from the Druggist to the Doctor.—Only the other day I read a very expressive sentence which read : "Why does my family physician own a $500 piano and a $20 microscope ?" I did not get his answer, but my own would be : "I don't know." Furthermore, I do know—he would not be my family physician. I do not think I would want a physician who did not read enough or have at least curiosity enough to use a microscope in his diagnosis. It does not strike me as a compliment to hear "Dr. ——— is so busy with his large practice that he does not get time to read his journals at all." It seems quite disproportionate, and the better let some other doctor have a few of his patients, while he goes home to find out that the earth has revolved a few times since his day. The fact is, a physician cannot be abreast of the times without a microscope, or at least the use of one. My old professor in medicine used to give us as advice : "Gentlemen, as you go out into practice get you, first a horse, and second a microscope, and last a wife."—*Prof. C. P. Pengra, M.D., in Pharmaceutical Record.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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Thomas F. Wood, M. D., Wilmington, N. C., } Editors.
Geo. Gillett Thomas, M. D., " }

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THE JOHNS HOPKINS HOSPITAL.

Nc med J. (os) 26: 523-525, # 2, Aug 1890

This is not the first, nor will it be the last, time that the Johns Hopkins Hospital will be the theme of the medical editor. Having taken its place in the medical world as the exponent of all that is best in the domain of sanitary knowledge, all institutions of a similar character must look to this one for the demonstration of the problems of lighting, heating, ventilation, sewerage, cookery and nursing, and the multitudinous details which enter into the administration of a hospital. It will be very many years before the trustees of a hospital in a Southern State will be called upon to imitate the Johns Hopkins in architectural design, but the rudest hospitals can be helped by the demonstrations which this great hospital is making in all that goes to ensure health and comfort, upon the principles of sound hygienics. There are many Southern hospitals that would be well off with a monthly allowance as great as the handsome volume describing the Johns Hopkins cost, and in these hospitals are being daily done as good work as any hospitals can do.

The handsome book sent us by the Trustees of the Johns Hopkins Hospital is worthy of the object it describes so fully. The handsome tribute of thanks tendered by the Board of Trustees to Dr. John S. Billings makes this greatest hospital in all the world as much a monument to his special skill and wisdom as it does to the philanthropy of Johns Hopkins. They say: "The Board desires to acknowledge and record that whatever excellence the Institution can claim as an advance in hospital construction is due to the great and deserved eminence in medical and sanitary science of Dr. Billlings, and his familiar knowledge of hospital relief of suffering, obtained through his governmental service in that department in the late war; his extensive and discerning research in what has been done elsewhere, and his aptitude in appreciating, perfecting and constructing all appliances for the proper nursing and cure of disease in public institutions; and the watchful zeal with which he has directed every step from the beginning."

The photographic views of the buildings are beautifully printed, and the detail drawings of buildings and apparatus are ample to convey a knowledge of the construction. The Hospital is located on a hill which overlooks the city of Baltimore, its natural drainage is good, the grounds (nearly thirteen acres) sufficient for future growth in the addition of more buildings which will ere long be necessary for accommodation of patients and for medical college buildings to be erected.

The letter of Mr. Francis T. King, President of the Hospital, to the medical gentlemen whose advice he sought in inaugurating the plans of the Hospital according to the will of the donor, and his address at the opening of the Hospital May 7th, 1889, evince the highest wisdom and benevolence, as of a man who, understanding what his dear friend would have desired were he living, was possessed with the ability to call to his aid the very men who could best execute the details of a great trust. To Mr. King is largely due the success of management, and the liberal spirit and freedom from sectarian bias, as set forth by Mr. Hopkins, is safe in his hands, and further, his request "that the influence of religion should be felt and impressed upon the whole management of the Hospital, and that the charity shall be undisturbed by sectarian influence, discipline or control," will be wisely executed by Mr. King.

Of the professional teaching of such an institution it is not too early to speak, although in its infancy, and the influence of its expectant career is already stirring the ambition (or compelling it, which?) of every institution in the land having similar objects in view. Her teachers are young men (most of them as yet unburdened by the cares of families), with zeal, and devotion, imbued with the spirit of the establishment they serve, and showing by their occasional contributions to science the promise of the future.

The day is not far distant when the European medical student will make his pilgrimage to the Johns Hopkins Hospital with the same zeal, and with as much profit, as our American students now flock to Edinburgh and Berlin. They will there find in the future all the best the world affords, assimilated, appropriated, and impressed with an individuality all its own, and the student of the future will reckon as the necessary part of his finish a course at the Johns Hopkins.

IDENTETE DE LA DENGUE ET DE LA GRIPPE-INFLUENNZA, PAR LE DOCTEUR JULES RANVIER.

The accomplished editor of the *Revue Internationale de Bibliographie,* also clinical professor of obstetrics and gynecology of the French Faculty of Medicine of Beyrouth, Syria, has given his views in a pamphlet of 48 pages on the identity of dengue and the epidemic influenza which pervaded the whole world this year. The argument for identity between these two diseases is admirably made, and comes with more than a usual degree of force inasmuch as the author has an experience of six epidemics of dengue, in four of which he was attacked with the disease.

The clinical material from which he draws his observations were the sick in factories, orphanages and convents, showing a population of nearly 1,800. His descriptions of the modifications and varieties in dengue, its abrupt invasion; the fever variable in both diseases, sometimes high, sometimes low, sometimes wanting; headache and nervous troubles, quite as well marked in both diseases, notably a quotation from *Stintzing and Weitmeyer*, who found 338 persons out of 405 attacked with grip had headache, and numerous records of analagous symptoms of vertigo, headaches, accompanied with agitation and delirium, with convulsions in children; in dengue, pains in the knees and feebleness in the legs and many other peculiar symptoms identical in the two affections. When he comes to the *eruption* the identity is more difficult to maintain, although the author informs us that in dengue the eruption fails often, and presents the most variable morphological characters; furthermore, pointing to the fact that various writers have spoken of the eruption in grip as scarlatina, rubeola, roseola, papulous affections, urticaria, petechia, and some others erysipelas, herpes, erythema, lichen, eczema, rupia, ecthyma, it looks like a most inconstant phenomenon in both diseases. The period of the eruption in both diseases is most variable. The locality of the eruption in dengue is on the hands, wrists and arms, but, according to some authorities, on the face and neck; still others on the chest, others on the feet and legs. In the grip the author cites from reporters, eruption on the hands, wrist and arms, on the face and neck, on the chest and trunk, on the feet and legs, and the face, as in dengue, sometimes edematous. The gastric troubles in danger were signalized by saburral tongue, nausea or vomiting, inappetency, fetid breath, pains in the stomach. In grip there is constipation, as a rule anorexia, vomiting, diarrhœa in a great number of cases. The tardiness of convalescence is the same in grip and dengue.

When the author comes to pulmonary complications his analogy weakens, and he is forced to admit that in dengue pulmonary complications are only coincidences, but even here he shows from many reporters that in the influenza cases the proportion of pulmonary manifestations varies much according to the region, and he is of opinion that not more in dengue than in grippe are pulmonary complications essential in the disease. This latter observation is certainly borne out in the Southern United States, where in some localities, as in Wilmington, pneumonia was as an unusual complication of influenza.

The author points out that dengue may not be accompanied by the malarial element, and in such cases quinine makes no impression on the disease, but that dengue creates a strong predisposition to make the malarial symptoms grave. In like manner grippe favors impaludism. In conclusion, the writer gives his assent to the statement of Grasset: "Dengue will be the grippe of warm countries, and grippe will be the dengue of northern countries."

SUING THE WRONG PARTY.—A young woman in Summit county, Ohio, was supposed to be suffering from an ovarian tumor coming on, it was alleged, as a result of injuries sustained in a railroad accident. Her suit for damages was still pending against the railroad company when an operation was deemed imperative. The surgeon was somewhat surprised on opening the abdomen to discover a dead full-term fœtus. The railroad company now disclaims all responsibility for the tumor.—*Medical Record.*

CHANGE OF EDITORS OF AMERICAN JOURNAL OF SCIENCES.—Dr. I. Minis Hays has retired from the editorship of the *American Journal of Medical Sciences* at the completion of the July number. For sixty of the seventy years of the existence of this standard journal it has been under the management of Drs. Hays, father and son, and they have made it the leading medical journal among English-speaking people. Dr. I. Minis Hays is succeeded by Dr. Edward P. Davis. We would be glad, for one, to see this old journal return to its quarterly issue, and be what it was for so many years, the leading review of the profession, but we presume this would be considered old-fashioned.

REVIEWS AND BOOK NOTICES.

Diseases of the Rectum and Anus; their Pathology, Diagnosis and Treatment. By Charles B. Kelsey, A.B., M.D. Third Edition. New York: William Wood & Co., 1890.

This is an old favorite in our library, and in its present edition it has added very much to its value through the assiduous revision which the author has given it. Rectal Surgery need no longer be the *bête noire* of practice if we clearly master the principles, and supply ourselves with a good outfit.

The one thing which strikes us in this book, and it is a great merit, that the author does not impute to himself or to his specialty any mysterious or difficult principles. What he describes as the pathological conditions he declares that, "if the beginner will be honest with himself, and will insist upon what is to be seen, and feeling what is to be felt, he will—except for the experience which only practice can give—make as good a diagnosis in his first case as the specialist who has practised for a lifetime."

The points in anatomy and physiology, and the general rules for examination are well calculated to set the practitioner on a fair road to success, for most failures in treatment of diseases of the rectum are due to failure to examine thoroughly.

The use of cocaine in rectal surgery, from which such high hopes had been entertained when it was first introduced, has settled down into the knowledge of the facts that it answers only for small operations, does pretty well when a 4 p. c. solution is injected in three or four places when stretching of the anus is resorted to, and the application of it to the mucous surface succeeds best of all.

The article on cancer of the rectum is very conservative, holds out hope from an early operation when the seat of the disease is not more than 4 inches from the anus, and does not involve the neighboring parts, the operation is safe as a palliative measure. All the various operations for the removal of cancerous rectum, and all the palliative measures are described.

In regard to the treatment of hæmorrhoids by the injections of solution of carbolic acid the author says: "All the patients I had supposed cured by this method, and upon whose cases I had based former favorable reports, are now returning to be cured by some more lasting method. The relief afforded by this method seems to last about four years."

We look in vain in the meagre index for several items, and cannot help complaining that so good a book is deficient in a satisfactory index.

FAMILIAR FORMS OF NERVOUS DISEASE. By M. Allen Starr, M.D., Ph.D. New York: William Wood & Co., 1890.

A knowledge of diseases of the nervous system is more and more felt by the general practitioner. It has been a rapidly advancing department of medicine, which was represented in this country not more than twelve years ago by one text-book, now the number has largely increased, and the tendency has been to make the knowledge of symptoms and treatment more practical.

This volume is a series of clinical studies of the more familiar types, the data upon which they have been made are selected from American material in the medical college of which the author is the professor of diseases in this special branch. Some of the chapters are written by the author's clinical assistants.

Our examination of this volume satisfies us that it is a book of marked excellence, and one that will exactly fill the needs of the physician with a small library who could afford only one book on this special subject.

The typography of the volume is of the best, it is not too bulky, there being only 339 pages, and the illustrations are good. One feature we do not recall in similar works is an attempt to give the physiognomy of some of the ordinary forms of mental diseases by means of composite photographs. Some useful prescriptions are added, such as are thought of value in the nervous department of the Vanderbilt clinic. The index is good, but might be made very useful by amplifying into a completer analysis with cross references, and making it do service as a glossary.

THE ANIMAL PARASITES OF SHEEP. By Cooper Curtice, D.S., M.D. Published by the Authority of the Secretary of Agriculture, Washington, D.C. Government Printing Office, 1890.

This volume was written as a help to sheep-raisers, to enable them to distinguish the parasites infesting their flocks. The drawings of the species are beautifully done, and would serve as a means of diagnosis in the hands of observers of good intelligence.

Our interest in this volume is owing to our increased conviction of the possibilities of the transmission of diseases from our food animals to man, and any studies illustrating the diseases of the lower animals may serve to indicate by what avenues we become infected with some of them. Such a volume is a great credit to the author and the department he represents.

The Extra Pharmacopœia, with the Additions Introduced into the British Pharmacopœia, 1885. By William Martindale, F.C.S. Medical References and a Therapeutic Index of Diseases and Symptoms. By W. Wynn Westcott, M.B. Sixth Edition. London : H. K. Lewis, 136 Gower St., W. C., 1890.

This little volume is 3x5¾ inches, with 485 pages, and is very full of good things. Pharmacopœias are dry things, and none know this better than the makers of them and those who have to supply the wants of the practising physician, and so they follow them with practical commentaries and extras. There is not a doctor in this State who would not find this extra-pharmacopœia exceedingly useful to him; containing as it does a large range of remedies and heretofore not well-known formulas, supplying the place of many larger books. The condensation of the volume has been effected largely by contraction and abbreviations, dosage being given in the index as well as the pagination. All the new remedies we read of that were given to the public before this little volume was printed we find here. Could not some American author take the hint and give us a similar one suited to the wants of the American practitioner? Here is a field for the conjoint authorship of a good pharmacist and practising physician.

Transactions of the American Pediatric Society. First Session, together with the Proceedings of the Meeting for Organization, held in Washington, September 18th, 1888. Edited by William Perry Watson, A.M., M.D. Printed by T. B. Lippincott & Co, 1890.

This is a very interesting volume, and remembering that it is the proceedings—the literary product—of two years, its value is greatly enhanced. Doubtless the study of diseases of children has been largely stimulated by the admirable special journal in this department, edited by the Secretary of this Society—THE ARCHIVES OF PEDIATRICS. While we do not believe that a genuine specialty can be made of the diseases of children, it is very gratifying to see men of ability studying in a very earnest way diseases which appertain largely to children, as well as to the dietetics of infancy. Such efforts are a credit to American medicine.

CHEMICAL LECTURE NOTES. Taken from Prof. C. O. Curtman's Lectures at the St. Louis College of Pharmacy. By H. M. Whelpley, M.D., Ph.G. F.R.M.S. Published by the Author, St. Louis, Mo.

This is an extended syllabus of lectures on inorganic chemistry and chemical physics, for the pharmaceutical and medical student. It is highly concentrated, so to speak, and serves, doubtless, an admirable purpose for Prof. Curtman's classes. For the average medical student it is too condensed, and would not be popular. For refreshing the memory of the chemical student it is admirable, and it is up to the latest sources of information.

ELECTRICITY IN THE DISEASES OF WOMEN, with Special Reference to the Application of Strong Currents. By G. Betton Massey, M.D. F. A. Davis, Philadelphia.

This small volume belongs to the Davis Pphysicians' and Students' Ready Reference Series, which in two years has reached its second edition. Not too much space is given to electro-physics, and what there is is practical and plain. The department of electro-therapeutics is illustrated by clinical records, and the book made generally acceptable by illustrations and the small, convenient shape in which it compasses the whole subject. The price, $1.50, puts it in reach of all.

THE NEUROSES OF THE GENITO-URINARY SYSTEM IN THE MALE WITH STERILITY AND IMPOTENCE. By Dr. R. Ultzman, University of Vienna. Translated by Gardner W. Allen, M.D. F. A Davis, Philadelphia.

This is another volume of Davis' Ready Reference Series, from the pen of an author who has given several good monographs to the profession on Diseases of the urinary apparatus. The little volume has neither table of contents nor index, but the title sufficiently explains the topics treated.

WILMINGTON MEDICAL SOCIETY.

REPORT MADE TO THE WILMINGTON MEDICAL SOCIETY AT THE REGULAR MEETING JULY 2, 1890—A CASE OF TRAUMATIC TETANUS, PATIENT DYING THE EIGHTEENTH DAY IN A STATE OF HYPERPYREXIA TWO DAYS AFTER ALL SPASMS HAD CEASED.

By Thomas F. Wood, M.D., Wilmington, N. C.

The following case was in the hands of several physicians from first to last, owing to the constrained absence of Dr. Jewett to appear before the Board of Medical Examiners, and on the part of the writer in attending the meeting of the Medical Society at Oxford; but as far as the policy of treatment and the fulfilment of details are concerned there was no failure or lapse, and owing to the assiduity of Dr. J. C. Shepard, who was associated in the case from its earliest stages, we owe the partial success of our efforts.

A case of traumatic tetanus "after it passes the fourth day recovers, and from the end of the first week on, the chances for recovery increase rapidly increase day by day, and after the second week there is but little danger of a fatal termination, though death may take place (from exhaustion usually) after the lapse of several weeks, six or more. I have myself seen it occur on the 37th day." (Dr. P. S. Conner, in *Pepper's System*, p. 553.

Traumatic tetanus is too common a disease to need any particular description, and it is only the salient points in this one that need to be narrated, the particular feature being that the patient died in a condition of hyperpyrexia on the eighteenth day, after all convulsive movements cease.

Mr. Ellis (an old Confederate soldier), a carpenter by trade, aged about 50, ran a small nail nearly through his foot. It healed rapidly, but in two weeks his foot swelled and pained, and in about a fortnight after his accident he had pain in his throat, similar, as he expressed it, to the beginning of a tonsilitis. This first symptom he discovered on Tuesday, 20th May, and on Thursday he was seen by Dr. R. D. Jewett, who turned him over to me the same afternoon. Dr. Jewett commenced treatment by giving 15 grs. antipyrin every two hours. It answered very well, enabling the patient to sleep many hours at a time; but on Friday, the fourth day of the disease, there were such spasms in the muscles of the throat and neck, that antipyrin was abandoned for hydrate chloral, 25 grs. every two hours, day and night. Opisthotonos was very marked at intervals on the fourth day, but rigidity of the jaws did not begin until the fifth day, when at times the patient in unguarded moments, in an effort at talking, bit his tongue quite severely, and of his own accord after that slipped the rubber end of a lead-pencil in his mouth and kept it there except while feeding.

For two or three days the fear of strangling kept him from attempting to drink enough fluids to keep him alive, but the anti-spasmodic effects of the chloral, which we supplemented with 1-100 gr. sulph. physostigmine every six hours; gave him courage to attempt to take food. When fully under the influence of the drug he took daily a quart of good milk and one or two large Irish potatoes, which amount of nourishment he increased up to the sixteenth day of his sickness; some days taking a quart of milk and as much rich chicken-soup, expressing a relish for it.

All the early days of this case temperature, pulse, breathing were nearly normal. Bowels were constipated, flow of urine copious. On the 1st June and twelfth day of disease, at 9 o'clock, pulse 90, temperature normal. Spasm of the muscles of neck and throat subsiding; can open his mouth and admit his middle finger edgeways. Spasms of the muscles of loins and hips increasing and at times violent. At 3 o'clock his temperature rose to 104.3° F., pulse 140, but was reduced in an hour or so after the administration of 15 grs. of antipyrin, remaining normal, or nearly so, for five days.

June 2d, thirteenth day of tetanus, patient got permission to smoke a cigar, after he had taken the liberty of smoking half of one before our arrival. He was in high spirits, took fluid nourishment abundantly. His habit was to keep his eyes closed, not from photophobia, but from a cause I could not understand, as he could tolerate the bright light of his room when he chose to open them. His pupils were normal and sensitive, but there was a habitual moderate knitting of the brows.

(It was deemed advisable in the first week of the case to make a free incision into the old cicatrix, as the patient sometimes complained of pain. His wound was dressed with oil of turpentine, but for the last three or four days of the patient's sickness the cotton was not removed, and when removed it was offensive.)

June 3d, fourteenth day of disease, pulse 100, temperature 98.4°, respiration 30. It was deemed prudent now to increase the interval between the doses of chloral to three hours, so favorable were all the symptoms. The spasms returned being especially severe in the hips and thighs. The nurse had to resort to strong pressure below the crest of the hips to give the patient comfort and enable him to assert control over muscular action. The original dose of 25 grs. of chloral was resumed every two hours, and the sulphate physostigmine increased to 1-50, and finally to 1-30 gr. six hours apart, controlling the spasm completely. Bowels are very constipated, as they have been almost from the beginning; 15 grs. calomel ordered. P. M. of the fourteenth day. temperature 100.1°, pulse 100, respiration 28. Had one spasm in the legs during the intervals of visits (9 hours).

June 4th, fifteenth day of disease. Free movement of bowels induced by calomel; temperature 100°, pulse 100, respiration 24; spasms in neck and legs occasionally; has to be on his guard not to bite his tongue. P. M., temperature 99.4°, pulse 96, respiration 24.

June 5th, sixteenth day. A. M., temperature 101.4°, pulse 106, respiration 30. No spasms since last evening at 6 P. M., when temperature was 101.1°, pulse 103, respiration 36.

June 6th. seventeenth day. A. M., temperature 104.5°, pulse 142, respiration 45. Antipyrin in 15 gr. doses, with 10 grs. quinine, were given every two hours, having no effect on the temperature until 75 grs. of each drug had been given. During their administration whiskey was given freely to sustain the heart's action. Temperature was reduced at 6 P. M to 102°, at 9 to 101°. There were no convulsive movements, patient being restored to a good degree of intelligence and spirits.

June 7th, eighteenth day of disease. Temperature at 6 o'clock 103°, at 7 o'clock asked to be helped to turn over, and in the act died.

A review of this case presents some peculiarities : The slowness of the access of serious symptoms, not manifesting serious spasmodic seizures until the third day; in a safe degree of temperature for twelve days; no involvement of the muscles of respiration until the last four days of his life, when the respiration was markedly abdom-

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AN OPEN LETTER

—TO THE—

MEDICAL PROFESSION ! !

THE INFANT FOOD PROBLEM SOLVED.

New York, May 1, 1890.

The Annual of the Universal Medical Sciences for 1889, says: "A perfect Infant Food is still a desideratum; such a food will probably be evolved in the mind of some manufacturer who understands the physiology of infantile digestion and the chemistry of milk. A substitute for human milk to approximate the latter closely should be made entirely from cow's milk, without the addition of any ingredient not derived from milk."

"But not alone do we demand that these Milk Foods contain the equivalent of the solids in human milk, and especially of the albuminoids derived from milk, but that the latter be gathered with the utmost care from properly fed animals, transported with the least possible jolting to the factory, maintained during its transit at a low temperature, then transferred to an apparatus for sterilization, and immediately after the latter has been accomplished reduced to a dry state, in order to prevent the formation of those organisms which Loeffer, Pasteur, and Lester have found to develop in fluid milk after boiling under an alkaline reaction. If such a preparation be put into air-tight and sterilized jars, all will have been accomplished that can be done to render the food sterile, and thus fulfil the chief indications in the prevention of the most serious gastro-intestinal derangements."

"Such a food, too, would have the advantage of being easily and rapidly prepared by addition of sterilized water, affording an altogether sterilized food."

To the *Medical Profession* at large, we submit for examination and trial the perfected Milk Food known as LACTO-PREPARATA. We claim that LACTO-PREPARATA is an *ideal Infant Food*, and that it fulfills the above requirements in every particular, except the partial substitution of cocoa-butter for unstable milk fat. This substitution was made by advice of Prof. Attfield, London, who made extensive tests of its food value and digestibility in the London Hospitals for Infants.

LACTO-PREPARATA is made from cow's milk evaporated in vacuo a few hours after it leaves the udder. In order to have the product correspond in composition with breast-milk, sufficient milk-sugar is added to bring up the carbohydrates and reduce the albuminoids to a proper proportion (17 per cent). The casein is partially pre-digested (30 per cent), and the remaining portion is rendered like human milk in character and digestibility. The ingredients are perfectly sterilized and placed in hermetically sealed cans; the powdering, bolting, and canning are done in an air-tight room, all air entering and leaving this room is forced by a blower through heavy layers of cotton. LACTO-PREPARATA is adapted more especially to infants from birth to six months of age; *and by the addition of water alone represents almost perfectly human milk in taste, composition, and digestibility.*

Another product of our laboratory which has been before the profession for a number of years is CARNRICK'S SOLUBLE FOOD, which, as now prepared and perfected, contains $37\frac{1}{2}$ per cent of the solid constituents of milk, $37\frac{1}{2}$ per cent of wheat with the starch converted into dextrine and soluble starch, and 25 per cent additional milk-sugar. For infants over six months of age it is perfection in every respect; for infants younger than this, Lacto-Preparata is more suitable; although *Soluble Food* has also been used largely from birth with the most satisfactory results.

Samples will be sent prepaid, also pamphlet giving detailed description.

REED & CARNRICK.

NEW YORK.

inal; the satisfactory quantities of food and water; his ability to sleep; his insusceptibility to noises usually very harmful to patients in his condition.

His house was located just at the Princess Street Depôt of the Seacoast Railroad, with trains coming and going frequently during the day; and the drainage of his own lot and that of the neighborhood not good. No worse locality could have been conceived than the one where he was unfortunately and helplessly domiciled, to be sick with tetanus.

The disease pursued the classical course, attacking the muscles of the neck and throat, then of the back, then of the hips, thighs and legs; leaving these, returned to upper part of the trunk, attacking slightly the arms, and at one time, on the twelfth day of his disease, he bit his tongue. Finally all spasmodic action ceased, he could open his mouth wide, could swallow deliberately. His complexion became dusky on the sixteenth day, and deepened to a tawny hue until just before his death.

Of the remedies we can only say they acted satisfactorily as far as the spasms were concerned. It was necessary to administer 300 grs. of chloral in twenty four hours, and the physostigmine act as a synergant to it. Before he acquired a tolerance of the latter drug, when given near to his chloral dose it relaxed everything, and made him talk and laugh so immoderately his wife had to beg him to stop. Later administrations of the drug had no such effect.

We were disposed not to lay much stress on the significance of the temperature as laid down by Mr. McNamara in Quain's Dictionary, but the sequel showed that his estimate of the prognostic value of it was well founded. It is not clear to us yet what caused the fulminant temperature on the twelfth day. It was precisely, in its clinical features, a regular chill and fever, so that we might easily slip into the loose way of calling it malarial. It disappeared with prompt dosing, and cropped out again in the same fulminant way on the seventeenth day, just five days from the first, the, the patient in the meantime having been under the influence of full doses (40 grs.) of quinine and not much less of antipyrin daily. On the sixteenth and seventeenth days we were able to suspend chloral entirely.

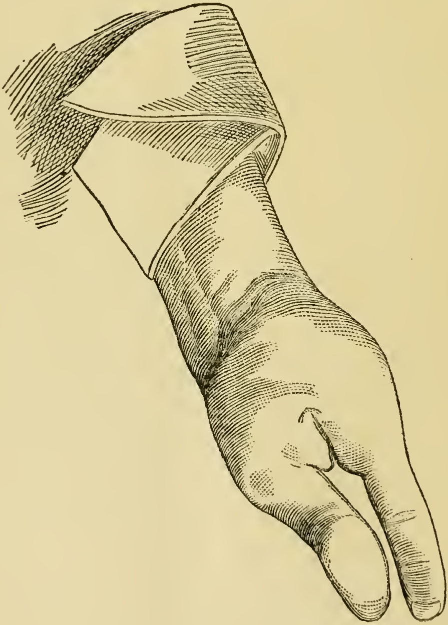
The queries we have now to make are, Would our patient have done better with better surroundings? Was the fulminant nature of the hyperpyrexia indicative of true malarial supervention? Was there septic infection from that neglected wound in the foot? Is it reasonable to conjecture that his condition made him more susceptible to purulent infection?

REPORT BEFORE THE WILMINGTON MEDICAL SOCIETY, JULY 2, 1890—SURGERY OF THE HAND, SHOWING THE RESULT AFTER SAVING THE THUMB AND LITTLE FINGER OF A MUTILATED HAND.

This case is introduced to exemplify the results of patient conservative surgery in mutilation of the hand by machinery.

A. M. C. had his hand caught in a cotton-picker at the Wilming-

Palmar Aspect.

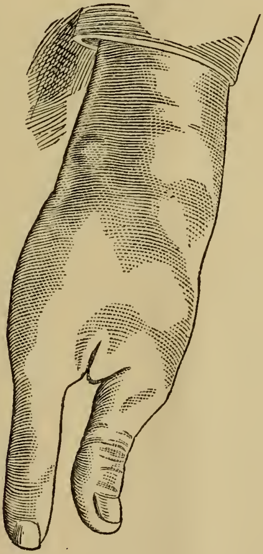


ton Cotton Mills, and badly mutilated. It became necessary to remove the second, third and fourth metacarpal bones. The os magnum was also torn from its attachment and had to be wired with silver to keep it in position.

We were fortunate enough to have sufficient integument to give the patient a good palm, and it was quite gratifying to see the amount and variety of work he could do with his thumb and little finger. The silver wire was removed some weeks after, leaving the wrist pliant. The beautiful result was due to the skill and patience of my friend Dr. Love, who kindly assisted in the tedious details.

The cuts represent the appearance of the hands on the dorsal and palman surfaces, and were taken from a photograph after the patient returned to his work.

Dorsal Aspect.



CORRESPONDENCE.

ELECTION OF OFFICERS BY BALLOT.

Messrs. Editors North Carolina Medical Journal:

DEAR SIRS—I find under the head of "Editorial," in your last issue, the following fact:

"This Society witnessed the election in open meeting of seven of its members to serve six years on the Board of Examiners, *without a jar, without any methods known to the politician,* and secured a new Board which we are willing to accept as representative men, and to which the safety of the law may be entrusted with all confidence."

Then, in reference to the election of the Society's executive officers, by ballot, as proposed in a resolution lying on the table until the Asheville meeting, you suggest the following:

"It should be seriously discussed, because it may involve the destiny of the Society, beget a spirit of party politics, consume time, and at last succeed in selecting the most popular man," etc.

After witnessing the promptness, the ease and fairness by which the *seven* members of the Board of Examiners were elected, in open meeting, by ballot, and feeling assured that the Society had chosen the very members that the majority desired, being seven of the most worthy and deserving gentlemen, it occurred to me that the time had come when the Society was in a condition to decide for itself who its officers should be; hence the resolution.

I would, in the first place, suggest that under this law a standing rule should be adopted to govern these elections something like the following: After the first ballot, if no election, all names be dropped but the three having the highest votes, then, after the third ballot, if no election, the names receiving the lowest votes, be dropped. No nominations allowed after ballotting has begun. This rule would avoid consuming unnecessary time—election certainly taking place on the fourth ballot, with only two candidates in the field. And we must remember that voting one name and counting does not consume time like voting and counting seven names in a body.

You refer to the American Medical Association and the American Public Health Association as choosing their officers by the committee system. Now we must remember that these associations are composed of delegations and are not mass meetings as those of the North Carolina Medical Society. In the meetings of the American Medical Association the nominating committee is appointed from different State delegations, thereby giving a more general representation, while in the State Society it would be impossible to appoint a committee with reference to territory, or claimants or factions.

In regard to its being necessary that the new material know the history and traditions of the work before they be allowed to vote for the higher officers, as suggested in your editorial, I am of opinion that the young members should not be set aside as not having opinions in regard to this matter worthy of respect. Most of them being native North Carolinians and having heard all their lives of the most eminent men in the medical profession, they go to the meetings pretty well equipped in knowledge as to the selection of the officers for the Society, as evidenced by their vote for the Board of Examiners at Oxford, everyone admitting that a better Board could not have been selected.

You suggest that inasmuch as we have to elect one year two members of the North Carolina Board of Health, and the next year two members of the Board of Examiners, too much time would be consumed in elections. If this should be the case I would claim that we should reverse the order of things and have these members of boards appointed by committee, and not muzzle the members in regard to naming their own presiding officer.

This resolution was not introduced because of any dissatisfaction with any individual action of any of the line of officers who have so faithfully and efficiently served the Society in the past, but it was prompted by that democratic principle which pervades the soul of every freeman, suggesting that we have a voice in the selection of those who rule over him.

J. W. McNeill, M.D.

SUCCESSFUL TREATMENT OF CARBUNCLE WITH PURE CARBOLIC ACID.

Since I have been practising medicine I have encountered a good many cases of carbuncle. I have used different plans of treating them locally with anything but satisfactory results.

For the past seven months I have been treating them after the following method: Paint the *whole* carbuncular surface with *pure* carbolic acid three times a day, until the mass begins to lessen and the slough is detached. I have treated ten carbuncles since I have begun this plan with the following results: If the carbuncle is seen before suppuration has begun, in three or four days it will abort. If suppuration has started, in seven to ten days the whole carbuncular mass can be removed with the forceps, leaving a healthy, granulating ulcer.

The treatment as above detailed reduces the time of treatment from weeks to days. And besides that, the acid being a local anæsthetic, adds very much to the comfort of the patient by relieving the pain, so much so that, after the first application, very little anodyne is needed.

Carbuncle is a localized inflammation of animalcular origin, situated in the cellular tissue between the skin and superficial layer of muscles. When the acid is applied to the skin the cuticle is destroyed and you have an absorbing surface through which the acid passes directly into the diseased mass and destroys all animalcule life in it.

If the readers of the JOURNAL will give the carbolic acid a trial they will be pleased with the result. Of course people who have carbuncles are run-down and must use tonics and a liberal diet.

J. L. NAPIER, M.D.

Blenheim, S. C.

DETECTION OF TERPIN IN THE URINE.—Urine, if terpin be present, when treated with hydrochloric acid, evolves a hydrocarbon which colors chloride of antimony red.—*Lancet.*

NOTES ABOUT SOME SEASONABLE REMEDIES FOR PREVALENT SUMMER DISEASES.

Among the diseases that are especially prevalent during the hot weather are the intestinal disturbances: diarrhœa, dysentery, intestinal colic, gastric irritability, etc.

The remedies commended for these affections are manifold, and must necessarily vary with the individual conditions. Simplicity of medicinal treatment in these cases is, we believe, practiced by the most intelligent physicians. As easily available, eligible and convenient remedies, when other than dietetic or hygienic measures are desirable, we may mention the following, supplied by us, which have proved efficient in the experience of many physicians:

Chloranodyne, a preparation of much value as a sedative, anodyne and antispasmodic in disturbances of the digestive tract incident to summer. The formula is an improvement upon the chlorodyne of J. Collis Browne, M.R.C.S.L., which has long been established in favor abroad.

Among intestinal sedatives tablets of bismuth subcarbonate and subnitrate, antacid tablets, soda-mint tablets, Dover-powder tablets, pepsin and bismuth tablets, arsenite of copper tablets, and pepsinum purum tablets or pepsin cordial when diarrhœa is dependent on fermentation of undigested food, offer a choice for selection to meet the varying indications present.

Our pepsin cordial presents the ferment in an especially desirable form for administration, being permanent and palatable, as well as possessing in a high degree the proteolytic properties of the gastric juice.

The antiseptic and sedative treatment of intestinal disorders is a deservedly popular one, and in this class of remedies we would remind physicians of the antiseptic yellow oxide of mercury tablets which have proved of so much service in septic forms of dyspepsia, and prophylactic against diarrhœa and dysentery.

For local use mercuric iodide tablets will be found convenient for making solutions of any desired strength, and for purposes of disinfection of excretions, or surroundings, antiseptic liquid or thiocamph may be employed to advantage.

There is another class of remedies, to which we ask especial attention, of much service in inducing emesis in children or adults in which overloading of the stomach or intestines leads to diarrhœa. A most reliable and certain emetic for this condition is normal liquid ipecac (standard two-per-cent. emetine). This is valuable also in croup incident to the exposure of children to sudden changes of temperature and the out-door life of summer.

For use as an expectorant for coughs and colds, two recent remedies are being largely employed, viz.: cocillana and Goanese ipecac.

Information as to any of these remedies in the form of descriptive circulars and samples for testing when desired, will be furnished to physicians on request.

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CURRENT NOTES.

"The Present Status of the Operations of Intestinal Anastomosis and Enterroraphy," by Rudolph Matas, M.D., in the *New Orleans Medical and Surgical Journal* for August, is an article of marked ability, and should be read by every one interested in intestinal surgery.

The Much-vaunted Pyoktanin.—"Pyoktanin," the new antiseptic and bactericide, appears to be nothing else than one of the methyl violets, probably that known as "3B." Experiments made at one of the New York public hospitals have shown this. The use of methyl violet and other aniline derivatives as disinfectants, which comes to us as a novelty, and that a costly one, from Germany, is not so new after all. During the discussion of a paper read by Dr. Charles O. Curtman, in June, 1882, before the Medico-Chirurgical Society of St. Louis, Mo., and published in the *Courier of Medicine*, August, 1882, the doctor called especial attention to the prospect of using the aniline dyes successfully as bactericides, basing his belief on the great avidity for absorption of these colors shown by the various bacilli then discovered.—*American Druggist.*

The Future of Sugar Chemically and Commercially.—We are specially interested in what the *American Druggist* (July, 1890,) says of sugar chemically and commercially. Through the researches of Emil Fischer it has been demonstrated that the various sugars may be made artificially from glycerine. So far this is only a laboratory feat, having no practical value, but the learned editors of the *American Druggist* see in this chemical demonstration the prospect that, "perhaps before the new century arrives," the important problem will be solved of the *conversion of glucose into sucrose* or cane-sugar. "The accomplishment of this chemical feat," they predict, "will revolutionize the national economy of many nations. It will utterly cut away the bottom from all laws or acts placing a tariff, either as export or import duties, upon cane-sugar, and will completely change the conditions of planting crops, and living of the sugar-raising districts." There must be, also, in this discovery of the production of sugar from glycerine, awaiting the physiologist, some new revelation as to the part sugar plays in the animal economy.

German Medical Diplomas.—In the numerous small free faculties of Germany the medical students pass their examinations thus: "Do you smoke?" asks the examiner. "Yes, sir," answers the student. "Will you have a cigar?" (*Hands the professor a pfenning cabbage-leaf cigar.*) "Tell me," says the professor (*slowly lighting his weed*), "what are a physician's principal duties?" "To collect his fees, increase his practice and exhibit his diploma from the time-honored University of Guzzleburg," replies the student. "Where shall you practise?" demands the professor, "and what are your duties toward me?" "I shall go to America, among the ignorant natives, and make a golden harvest. And my duty toward you, Herr Professor, is to invite you to dinner for the rest of the semester," answers the student. The professor smiles and says: "You are right. Let us go to a restaurant opposite and I will sign your diploma. The diplomas of the time-honored University of Guzzleburg are admired and respected in America. I have a cousin who is a doctor in Chicago. Let me tell you how the Indians chased him on Prairie Avenue. He was wounded twice by their arrows, and captured, but was released by his pursuers when they found on his person the time-honored diploma of the University of Guzzleburg. Ah! here's the restaurant, and I will make out your diploma from the time-honored University of Guzzleburg." —*Cincinnati Lancet-Clinic.*

READING NOTICES.

Epilepsy of Thirty Years Standing.—In an old case of 30 years standing I used Peacock's Bromides with marked success and decided benefit; patient had from three to six seizures, usually in twenty-four hours; under the use of Peacock's Bromides the patient is almost entirely free from further attacks and otherwise generally improved. J. S. Brunner, M.D.
Bay Port, Florida.

Charles A. Riley, M.D., Rockville, Mo., says: "Some time since I had occasion to treat one of the worst cases of chronic alcoholism that ever came under my observation. Patient, man, aged 24, had been a constant drinker for several years, interspersed by occasional sprees, and during one of these I was called to treat him. After giving him medicine to arouse his liver to proper action, I commenced giving him tablespoonful doses of Celerina (Rio Chem. Company) every four hours. He begged for whiskey until he got under the influence of Celerina, which was only a few doses; after that he quieted down, and the terrible appetite for, and influence of, whiskey began to subside. In about eight days he resumed his place in business, and ever since has had no appetite for whiskey and no bad results in any form. I do not think it can be equalled as a remedy in any case where it is indicated."

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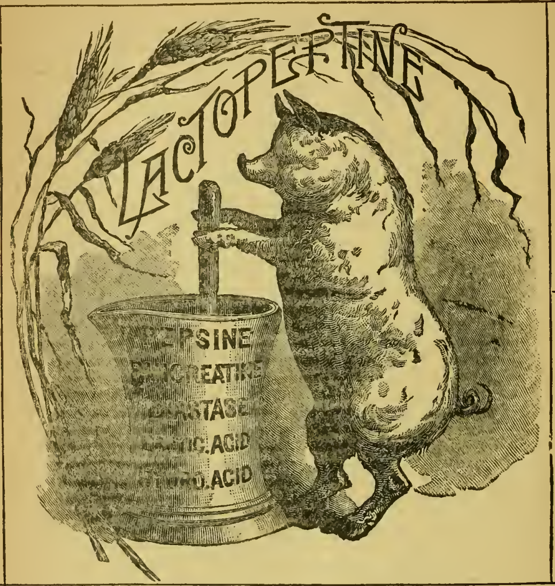

of all those ailments, in which deficient digestion is the direct or indirect cause of pathological conditions.

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NORTH CAROLINA
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THOMAS F. WOOD, M. D.,
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NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } **Editors.**

Number 3. Wilmington, September, 1890. Vol. 26.

ORIGINAL COMMUNICATIONS.

PNEUMONIA.

By R. A. Patterson, M.D., Aurelian Springs, N. C.

(Read before the Medical Society of Halifax County, N. C.)

Mr. President and Gentlemen of the Medical Society of Halifax County, N. C.:

In the discussion of Pneumonia to-day I shall but briefly allude to its nosology, etiology, clinical history or diagnosis, medical men being much more nearly agreed upon these than upon its treatment. The latter, being so greatly modified by the various constitutional peculiarities of its victims, the different localities, seasons of the year and complications with other affections, will require a more extended consideration.

As to its nosology, while formerly it was looked upon as a local inflammation exclusively, there are men of prominence who consider it an essential fever (" Febris Pneumonica "), and the local affection as a concomitant, just as the ulceration of the intestinal glands is an accompaniment of typhoid fever.

Austin Flint says: "It is a fever characterized by an abundant exudation deposit in the air vesicles of a single lobe, or of two lobes, or sometimes of three, with in general circumscribed bronchitis and dry pleuritis.

It is a fever which rapidly reaches its maximum intensity and has a short course, the duration about ten days. It proves fatal chiefly in consequence of associated disease, complications or accidents, and the mode of dying is by asthenia. It is non-communicable, and depends on a cause or on causes specific in character, the nature of which is at present unknown, but having relations to season and climate. It sometimes aborts spontaneously, and is in some instances arrested by remedies. If not arrested it may be favorably modified, its duration abridged and the danger to life diminished by treatment addressed, not to the pulmonary affection, but to the fever"; in which latter I must presume to differ from him. For, whether or not we adopt his views as to its proper classification, I think we cannot wisely neglect the local affection, the inflammation of the pulmonary parenchyma. The cause of the disease never having been determined, it attacks all ages and conditions of men, under all circumstances, as to exposure or otherwise, at all seasons of the year and in all climates. Observation, however, proves that it arises most frequently on exposure to cold and wet. It is often complicated with other affections, and if they have an asthenic tendency, such as old age and delirium tremens, they add greatly to the gravity of the prognosis.

The symptoms vary from slight indisposition to conditions of the extremest gravity. Flint cites an instance of a patient walking two miles to consult him who, on examination, proved to be suffering unquestionably with pneumonia.

I will not detain you with a delineation of the general symptoms so fully set forth as they are by authors, but will proceed to consider the treatment, than which few medical topics have elicited a wider range of discussion or cited a greater array of remedies. This is not difficult to understand when we consider how many circumstances may modify its intensity and tendency. My own observation, extending over a period of more than thirty years, has led me to classify the affection as sthenic, asthenic and malarial, with various degrees of intensity in each division. As for the sthenic variety, viz: the disease attacking a vigorous, healthy subject, I am convinced that many lives are lost by the neglect of what is sometimes called "the lost art," viz: blood-letting. It is admitted to lessen the temperature of the body, the intensity of the inflammation relieves pain promptly, diminishes the frequency and power of the heart's action, lessens fibrinous exudation, facilitates the passage of the blood through the pulmonary circuit, lessens the functional labor of the lungs and diminishes fever.

By diminishing the amount of blood accumulating in the right side of the heart, it lessens the danger of heart-clot, indicated by loss of the rythm in the pulse-beat and sense of suffocation.

I sincerely hope that every member of this Society has read, or will read, the article on blood-letting published in the April number of the NORTH CAROLINA MEDICAL JOURNAL, 1889, by that distinguished member of the State Society, Dr. R. L. Payne, of Lexington. I am deeply impressed with its force and truth, confirming, as it does, my own experience and observation through a long series of years in the treatment, and sometimes mistreatment, of this dire disease.

I extract the following from among a number of cases cited by the author to prove the efficacy of blood-letting. Says Dr. Payne: "On the 20th April, 1887, we visited a young man aged 19, who was sick with a characteristic and severe attack of pneumonia of the left lung. He had been ill for several days before we saw him, and important time for treatment had been lost, but we did as physicians often have to do—the best we could—and put him on the received treatment for the beginning second stage of croupous pneumonia. We visited him regularly, and on the eighth day of the attack found him with all the bad symptoms greatly aggravated. The greater portion of the left lung was now solidified, his lips were blue and his face wore an anxious, pinched expression and a dusky, mottled appearance. He was breathing with extreme difficulty, and at least 50 times a minute, and his expectoration was copious and very bloody. His pulse was small, frequent and feeble, and his temperature had gone up to 107° and had never been below 104° since we had seen him. Upon consultation crepitant râles were detected both in front and at the back in the lower lobe of the right lung. Now, what could we do for this young man?

He had already taken heart tonics and stimulants freely, digitalis, ammonia and brandy, and was in a warm room with poultices on the chest, etc. Still he was about to die. When I reflected that all the blood in his body must pass through his lungs and knew that they were crippled and could not perform their functions, and believing that his respiration was frequent and labored because the lungs were making desperate efforts to aerate the poisoned blood, and when I believed that his pulse was small and feeble and frequent, not simply because his heart was weak and needed a stimulant, but rather because it was opposed and overwhelmed by a load beyond its normal capacity, I knew of no remedy likely to afford relief but venesection. I had seen a man in a condition precisely similar in all respects only a short time before, and I saw him die while I relied on heart tonics and stimulants. I believed that the boy before me would die and die in a few hours if I did not bleed him, and though I was afraid to do him so, I bound up his arm and abstracted 18 ounces of blood in full stream. His whole appearaace changed for the better, and while I was binding up his arm he said to me: 'Doctor, I feel better, and can breathe easier.' From this time there was gradual but perceptible improvement in all the bad symptoms and he went on to complete recovery. This seemed to be the turning point in his case, and I firmly believe that he would have died without the bleeding."

Dr. Payne gives several other cases as plainly indicating the efficacy blood-letting.

I will now cite a few instances of my own experience: A few years before the late war I attended a young negro man, a slave, and most efficient servant, and one highly valued by his master, suffering with pneumonia, previously in good health and strong. My habit in those days (and would I had never been enticed away from it) was, when called to a case of the kind, to cord and take blood from the arm until there was an evident systemic effect from loss of blood, the patient, previously in a sitting posture, was then brought to the horizontal. Then, after cleansing out the "primæ viæ," it was generally necessary to keep the patient for a few days on contra-stimulant doses of tartarized antimony. And few and grave were the cases that did not yield to this course of treatment. Presuming that in the present instance this mode had been adopted, I do distinctly remember that one night, after unremitting attention, his pulse was very frequent, small, but not very weak, his breathing quick; there was great restlessness, jactitation and distressing cough. I had administered such drugs as seemed indicated, and believed that my patient might die before day. At this juncture it occurred to me to take very cautiously a small amount of blood from the arm, with my hand on the pulse, so as to cease at the first indcation of depression. I placed at hand some stimulant (in this case coffee) and allowed 8 ounces of blood to run before any systemic effect was observed. He was then laid horizontally and the stimulant given. He began to improve at once. The pulse became fuller and slower; he expressed himself as feeling better and went to sleep. He steadily improved from that hour and recovered entirely.

In 1885 I was called to an athletic young white man, previously in vigorous health, but now suffering with pleuro-pneumonia. The symptoms were very marked; pulse 130, temperature 103; scarified and cupped over affected lobes, which relieved pain to some extent, poultice over cups, tartarized antimony, short of emesis, had been purged previously. Six hours later pulse 140, temperature 105°. Stopped antimony, gave 8 grs. quinine every four hours, milk diet, cupping repeated, quinine continued. There were variations in pulse and temperature, but no improvement.

On the fourth day he seemed *in articulo mortis*, and I proposed to leave, but just then he turned his head to one side and emitted from mouth and nose several ounces of blood. His consciousness and power of speech, which had entirely departed, returned, he talked rationally, and actually took some nourishment. I thought that a crisis had been reached and that he would thenceforth improve, but delirium supervened, then convulsions followed by death. I now believe that had he been bled freely at first, or more moderately after the discharge of blood from mouth and nose, he would very probably have recovered. But had he died after the bleeding, many of the laity, and, indeed, some of the faculty, would have ascribed it to the bleeding, so strong in many individuals is the prejudice against this time-honored, and, in many instances, indispensable appliance. Time does not admit of the relation of more of the many proofs of the efficacy of the measure in sthenic pneumonia.

I cannot, perhaps, more appropriately close these remarks on blood-letting than by quoting the following :

"The path of duty lies in a constant recurrence to first principles, and the wisdom of the past must every now and then arise and rebuke the follies of the present. Each generation is destined, we trust, to make some advances. But such true progress can never be realized by abandoning the ground already acquired. Truth marches forward continually, but never, like the ruthless conqueror, burns up its conquests."

When the case is of the asthenic type I have used most satisfactorily the ammonium carbonate as the main reliance. It has acted admirably in conjunction with quinine. In cases of malarial origin of course quinine is the sheet-anchor, and in any kind of case, when accompanied by much pain, I have found the addition of acetanilid to allay the pain and act like a charm.

I will not occupy more of your time in recalling the various remedies which have been brought to the notice of the profession in the treatment of this disease. I believe that one or other of the three modes of treatment as outlined above, supplemented or modified at the discretion of the practitioner, will meet almost any case that may present itself.

REPORT OF A CASE OF STRYCHNINE POISONING—SHOWING HOW THE TIMELY AND FREE ADMINISTRATION OF LARD DELAYED THE ABSORPTION OF A LETHAL DOSE OF STRYCHNINE.

By Wm. H. Cobb, Jr., M.D., Goldsborough, N. C.

On the morning of April 28th, 1890, I was hurriedly called into the country a distance of about six miles, expecting to find upon my arrival a case of apoplexy, from the description given by the messenger who brought the call. I reached the bedside of the patient, a colored woman æt about 42 years, at 9 o'clock, and found her husband and friends in a state of much excitement, rubbing her limbs and trying to prevent them from "drawing," as they very tersely expressed it.

Pupils dilated, pulse good, but rapid, respiration somewhat labored, her countenance portrayed much suffering, but her mind was distinctly clear and very active. Finding that my surmise as to apoplexy was altogether wrong, began, at once, a hasty enquiry into the history of the case, with the revelation of the following information.

Having for several days been feeling badly, and being afflicted with what she called "inward fevers," she took from a pill-box on the mantlepiece two very small capsules, which she supposed to contain quinine, although on the box was written, very distinctly, "Strychnine Poison"; possessing no education, however, she was unable to read. Having taken the two capsules, she busied herself about breakfast, and, after working for sometime, she says she heard them "bust" in her stomach.

At 7 : 30 the family sat down to breakfast, but she, feeling worse than usual, asked for a cup of coffee. Her feelings, she said, were very peculiar indeed at this time, but, with cup in one hand and saucer in the other, she attempted to sip the coffee, when suddenly her arms were drawn across each other in front of chest; simultaneously her whole body was drawn forward and she came over on the floor in a tetanic condition, immediately losing consciousness. Her husband, after dilligent and persistent enquiry, learned from her that she had taken, through mistake, the two capsules of strychnine which he had purchased about sixteen months previously for the purpose of killing a dog. He began immediately the administration of lard in one-half cupful quantities until about Oj. had been taken, dispatching at the same time a messenger for a doctor.

Previous to my arrival she had suffered several more or less severe tetanic convulsions, one so great that she rested on occiput and heels (opisthotonos), and complained of great stiffness of muscles of jaws. Her mind was perfectly clear and she was very much concerned about her condition as to whether or not I thought she would recover. While in conversation these tetanic contractions manifested themselves and she explained the sensation by saying she felt as though her arms, hands, legs and feet were being drawn from her body.

I arrived at the house of patient at 9 o'clock, and, having elicited the information given at 9 : 7, a hypodermic of morphine, gr. $\frac{1}{4}$, atropine, gr. 1-200, was administered to control the tetanic contractions which were now mild, but very painful. At 9 : 10 ipecac, grs. 20. were given; no emesis following, in a few minutes salt and warm water were freely administered; 9 : 28 ipecac, grs. 10; 9 : 35 salt and warm water again. Still no emesis. I gagged the patient with a feather, and was happy to have my effort followed by success at 9 : 44, the ejected matter containing about Oj. of lard. Not yet feeling satisfied with the emesis produced, at 9 : 50 mustard and warm water were given, followed at 10 : 05 by salt and warm water. Again a hypodermic of morphine and atropine was administered to control tetanic contractions which were still very painful. At 10 : 17 ipecac, grs. 30, were given, in a short while followed by salt and warm water. Again used feather and caused patient to use her finger, inserting it down her throat; my efforts in each instance, however, were utter failures. Finding that she was more quiet, and believing that the greater part of the strychnine had been incorporated in the evacuated lard, I gave instructions to keep patient perfectly quiet; left large doses of bromide potass. to be given frequently, and took my departure, assuring the woman and her friends that I thought the worst was over.

Returning the next morning, I found she had vomited shortly after I had gone and again several times in the afternoon; her condition was very favorable, however. She complained of soreness over all her body and in limbs, and had enjoyed but little sleep since my departure, her husband fearing she would never awake if permitted to do so. Ordered bromide of potass. continued and bland and unirritating foods administered. Since then she has gotten along as well as usual, and attends to her household duties as formerly.

The remarkable aspects of the case are :

1. The length of time the capsules had been taken before the effects of strychnine were manifested.

2. The great amount of emetics necessary to produce vomiting.

3. The very slow degree of absorption of strychnine when incorporated with lard.

The poison had been purchased about sixteen months, and no doubt the slow dissolution of capsules was due to their age. The great resistance of the stomach to the emetics used was probably due to the fact that its whole interior was coated with lard, hence the medicines used could produce but little local action. As best I could determine about 4 grs. of strychnine were taken.

The history of the above case manifests very forcibly the value of fats when timely administered in strychnine poisoning; and I am inclined to think that our text-books do not insist as strongly as they should upon the administration of fats in such cases, for I am thoroughly convinced that death would have ensued had not such action been taken in this case.

MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.

Official Report of Joseph Jones, M.D., of New Orleans,
Surgeon General United Confederate Veterans,
156 Washington Avenue, New Orleans, June 30, 1890.

His Excellency John B. Gordon, General Commanding United Confederate Veterans, Atlanta, Ga.:

General:—I have the honor to submit the following: The Medical Department of the Confederate States was a branch of the War Department, and was under the immediate supervision of the Secretary of War.

The Surgeon General of the Confederate States was charged with the administrative details of the Medical Department, the government of hospitals, the registration of the duties of surgeons and assistant surgeons, and the appointment of acting medical officers, when needed, for local or detached service. He issued orders and instructions relating to professional duties of medical officers, and all communications from them which required his action were made directly to him.

The great struggle for the independence of the Southern States ended twenty-five years ago, and all soldiers in the Confederate Army, from the Commanding General to the private in the ranks, were, by the power of the conquering sword, reduced to one common level, that of the *paroled prisoner of war.*

The objects of the Association of the United Confederate Veterans of 1890 are chiefly *historic* and *benevolent.* We conceive, therefore, that the labors of the Surgeon General relate to two important objects:

1st. The *collection and preservation of the records of the Medical Corps of the Confederate Army and Navy.*

2d. The *determination, by actual investigation and enquiry, of the numbers and condition of the surviving Confederate soldiers who have been disabled by wounds and disease received in their heroic defence of the rights and liberties of the Southern States.*

To accomplish the first object the following Circular No. 1 has been issued :

THE COLLECTION AND PRESENTATION OF THE RECORDS OF THE MEDICAL OFFICERS OF THE CONFEDERATE ARMY AND NAVY.

CIRCULAR NO. 1.

OFFICE SURGEON GENERAL, U. C. V.,
166 Washington Avenue, N. O., La., April 9, 1890.

To the Survivors of the Medical Corps of the Confederate States Army and Navy:

COMRADES :—The surrender of the Army of Virginia on this day, twenty-five years ago, practically ended the struggle for the independence of the Southern States, and during this quarter of a century death has thinned our ranks and our corps can now oppose but a broken line in the great struggle against human suffering, disease and death.

S. P. Moore, Surgeon General of the Confederate Army, is dead; Charles Bell Gibson, Surgeon General of Virginia; Surgeons L. Guild, A. J. Ford, J. H. Berrien, J. T. Darby, W. A. Carrington, S. A. Ramsey, Samuel Choppin, Robert J. Breckenridge, E. N. Covey, E. S. Gailliard, Paul F. Eve, O. F. Manson, Louis O. Foard, S. E. Halbersham, James Bolton, Robert Gibbs, and a host of other medical officers of the Confederate States Army are dead.

The Association of the United Confederate Veterans was formed in New Orleans in 1889, the objects of which are historical, social and benevolent. Our illustrious Commanding General, John B. Gordon, of Georgia, has ordered the United Confederate Veterans to assemble in Chattanooga, Tennessee, on July 3d, 1890.

It is earnestly hoped that every surviving member of the Medical Corps of the Confederate Army will meet upon this important occasion and promote, by his presence and his counsels, the sound interests of the United Confederate Veterans.

It is of the greatest importance to the future historian and also to the honor and welfare of the medical profession of the South, that careful records should be furnished to the Surgeon General of the United Confederate Veterans, embracing the following data :

1. Name, age, nativity, date of commission in the Confederate States Army, nature and length of service of each and every member of the Medical Corps of the Confederate States Army.

2. Obituary notices and records of all the deceased members of the Medical Corps of the Confederate Army.

3. The titles and copies of all field and hospital reports of the Medical Corps of the Confederate Army.

4. Titles and copies of the published and unpublished reports relating to military surgeons and to diseases of armies, camps, hospitals and prisons.

The object proposed to be accomplished by the Surgeon General of the United Confederate Veterans is, the collection, classification, preservation and final publication of all the documents and facts relating to the history and labors of the Medical Corps of the Confederate States Army during the Civil War (1861–1865). Everything which relates to this critical period of our national history which should illustrate the patriotic, self-sacrificing and scientific labors of the Medical Corps of the Confederate States Army, and which shall vindicate the truth of history, should be industriously collected, filed and finally published. It is believed that invaluable documents are scattered over the whole land, in the hands of the survivors of the Civil War (1861–1865), which will form material for the correct delineation of the medical history of the corps which played so important a part in the great historic drama.

Death is daily thinning our ranks, whilst time is laying its heavy hands upon the heads of those whose hair is already whitening with the advance of years and the burden of care. No delay, fellow-comrades, should be suffered in the collection and preservation of these precious documents. To this task of collecting all documents, cases, statistics and facts relating to the medical history of the Confederate Army the Surgeon General of the United Confederate Veterans. invites the immediate attention and coöperation of his honored comrades and compatriots throughout the South.

Respectfully your obedient servant,
JOSEPH JONES, M.D.,
Surgeon General United Confederate Veterans.

FORMATION OF THE MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.

The entire Army of the Confederate States was made up of volunteers from every walk of life, and the Surgical Staff of the Army was composed of the general practitioners from all parts of the Southern country whose previous professional life, during the period of unbroken peace which preceded the Civil War of 1861–1865, gave them but little surgery, and very seldom presented a gun-shot wound. The story of the hygiene of the vast armies, hastily collected to repel invasion, poorly equipped and scantily fed, as well as the frightful experience of the wounded upon the battlefield and the horrible suffering of the sick and wounded in the hospitals unfolded a vast field for the exercise of the highest skill and the loftiest patriotism of the medical men of the South. This body of men, devoted solely to the preservation of the health of the troops in the field, to the succor of the wounded on the battlefield, and the preservation of their precious lives, and the surgical care of their mangled bodies and limbs, and the treatment of their diseases in the field and general hospital, responded to every call of their bleeding country, and formed upon land and upon sea one indivisible corps which penetrated all arms of the service, and labored for every soldier, however exalted or however low his rank.

When the storm of war suddenly broke upon the Confederacy, and the thunders of cannon were heard around her borders, and her soil trembled with the march of armed battalions, when her ports were blockaded, and medicines, surgical instruments and works were excluded as "*Contraband of War*," the medical practitioners of the South gave their lives and fortunes to their country without any prospect of military or political fame or preferment. They searched the fields and forests for remedies, they improvised their surgical instruments from the common implements of every-day life, they marched with the armies and watched by day and by night in the trenches, the Southern surgeons rescued the wounded on the battlefield, binding up the wounds and preserving the shattered limbs of their countrymen. The Southern surgeons, through four long years, opposed their skill and untiring energies to the ravages of war and pestilence. At all times and under all circumstances, in rain and in sunshine, in the cold of winter and in the burning heat of summer, amid the roar of battle and the hissing of bullets, the shriek and crash of shells, the brave hearts, cool heads and strong arms of the Southern surgeons were employed but for one purpose—the preservation of the health, the lives and the limbs of their countrymen. The Southern surgeons were the first to succor the wounded and the sick and their ears record the last messages of love and affection for country and kindred, and their hands closed the eyes of the dying Confederate soldiers.

When the sword decided the cause against the South, and the men who had for four years borne the Confederacy upon their bayonets, surrendered *prisoners of war*, the members of the Medical Corps of the Confederate Army and Navy returned to their desolated homes, and, resuming the practice of their profession, spoke words of cheer to their distressed countrymen, administered to the sick and wounded Confederate soldiers, and extended their noble and disinterested charities to the widows and orphans of the bereaved and distressed country.

Whilst the political soldiers rose to wealth and power upon the shoulders of the sick and disabled soldiers of the Confederate Army, by sounding upon all occasions "His War Record," the modest Medical Corps of the Confederate Army and Navy were content to serve their sick and wounded and distressed comrades, asking and receiving no other reward than that "peace which flows from the love of humanity, springing from a generous and undefiled heart." It is but just and right that a Roll of Honor should be formed of the band of medical heroes and veterans.

MAGNITUDE OF THE LABORS OF THE MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.

Some conception of the magnitude of the labors performed in field and hospital service by the officers of the Medical Corps of the Confederate Army may be formed by the consideration of the following results :

Killed, Wounded and Prisoners of the Confederate Army of 1861–1865.

1861, killed, 1,315; wounded, 4,054; prisoners, 2,772; 1862, killed, 18,582; wounded, 68,659; prisoners, 48,300; 1863, killed, 11,876;

wounded, 51,313; prisoners, 71,211; 1864 and 1865, killed, 22,000; wounded, 70,000; prisoners, 80,000. Total killed, 53,773; total wounded, 194,226; total prisoners, 202,283.

During a period of nineteen months, from January, 1862, to July, 1863, inclusive, over 1,000,000 cases of wounds and disease were entered upon the Confederate field reports, and over 400,000 cases of wounds and disease treated in the Confederate field and general hospitals were even greater during the following twenty-two months, ending April, 1865. It is safe to affirm, therefore, that more than 3,000,000 cases of wounds and disease were cared for by the officers of the Medical Corps of the Confederate Army during the Civil War of 1861–1865.

The figures, of course, do not indicate that the Confederacy had in the field an army approaching 3,500,000. On the contrary, the Confederate forces actively engaged during the war of 1861–1865 did not exceed 600,000. Each Confederate soldier was, on an average, disabled for a greater or lesser period, by wounds and sickness, about six times during the war.

LOSSES OF THE CONFEDERATE ARMY OF 1861–1865.

Confederate forces actively engaged during the war of 1861–1865, 600,000; grand totals of deaths from battle wounds and disease, 200,000; losses of the Confederate Army in prisoners during the war, on account of the policy of non-exchange adopted and enforced by the United States, 200,000; losses of the Confederate Army from discharges for disability, from wounds and disease and from desertion during the war of 1861–1865, 100,000. If this calculation be correct one-third of all the men actively engaged on the Confederate side were either killed outright upon the field, or died of disease and wounds, another third of the entire number were captured and held for indefinite periods prisoners of war, and of the remaining 200,000 at least one-half were lost to the service by discharges and desertions. At the close of the war, then, the available armed force in the field and fit for duty numbered scarely 100,000 men. The great Army of Northern Virginia, surrendered by General Robert E. Lee on the 19th of April, 1865, could not muster 10,000 men of all arms, fit for active warfare. Of this body of 600,000 men 53,773 were killed outright and 194,026 wounded on the battlefield.

One-third of the entire Confederate Army was confided to the Confederate surgeons for the treatment of battle wounds, and in addition to such gigantic services the greater portion, if not the entire body of the 600,000 men, were under the care of the Medical Department for the treatment of disease. Well may it be said that to the surgeons of the Medical Corps is due the credit of maintaining this host of troops in the field.

Such records demonstrate beyond dispute the grand triumphs and glory of medicine, proving that if the physician be the preserver of nations in time of peace, he is no less the preserver and defender of armies during war. These records show that the medical profession, however indispensable in the economy of government during peace, becomes the basis of such economy during war. These statistics prove the importance of medicine and its glorious triumphs, and elevate it logically to its true position in the estimation of not only the physician, but in that also of the warrior and statesman. The energy and patriotic bravery of the Confederate soldier are placed in a clear light when we regard the vast armies of the Federals to which they were opposed. The whole number of troops mustered into the service of the Northern Army during the war of 1861–1865 was 2,789,893, or about three times as large as the entire fighting population of the Southern Confederacy. At the time of the surrender of the Confederate armies and the close of active hostilities, the Federal force numbered 1,000,516 of all arms, officers and men, and equalled in numbers the entire fighting population of the Southern Confederacy.

Opposed to this immense army of 1,000,000 men, supplied with the best equipments and arms, and with the most abundant rations of food, the Confederate Government could oppose less than 100,000 war-worn and battle-scarred veterans, almost all of whom had at some time been wounded, and who had followed the desperate fortunes of the Confederacy for four years, with scant supplies of clothing, with coarse and scant rations, and almost without pay. Yet the spirit of the Confederate soldier remained proud and unbroken to the last charge, as was conclusively shown by the battles of Franklin and Nashville, Tenn., the operations around Richmond and Petersburg, the last charge of the Army of Northern Virginia, the defence of Fort McAllister, on the Ogeechee river in Georgia, where 200 Confederate soldiers, in an open earthenwork, resisted the assaults of more than 5,000 Federal troops, and never surrendered, but were cut down at their guns; at West Point, Georgia, where there was a similar disparity between the garrison and the assaulting corps, where the first and second were killed, and the Confederates cut down within the fort; the defence of Mobile, in Alabama, and the battle of Bentonville, in North Carolina.

NUMBER OF OFFICERS AND ROSTER OF THE MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.

The destruction by fire of the medical and surgical records of the Confederate States deposited in the Surgeon General's office in Richmond, Virginia, in April, 1865, has rendered this, the preparation of a complete Roster of the Medical Corps very difficult, if not impossible. A general estimate of the aggregate number of medical officers employed in the Medical Department of the Southern Confederacy, may be determined by the number of commissioned officers in the Confederate Army down to the rank of Lieutenant Colonel. Each regiment in the Confederate Army was entitled to one colonel, one surgeon and one or two assistant surgeons. A medical officer was generally attached to each battalion of infantry, cavalry or artillery. Generals, Major Generals, Lieutenant Generals and Brigadier Generals frequently, if not always, had attached to their staff medical directors, inspectors and surgeons of corps, divisions and brigades.

We gather the following figures from the elaborate and invaluable "Roster of General Officers, etc., in the Confederate Service," by Colonel Charles C. Jones, Jr., Augusta, Georgia, prepared from official sources :

Confederate States Army—Generals, 6.

Provisional Army—Generals, 2.

Confederate States Army Regular and Provisional—Lieut. Generals, 21; Major Generals, 99; Brigadier Generals, 480; Colonels, 1,319. Total, 1,927.

If it be estimated that for each of these officers one surgeon and two assistant surgeons were appointed, and served in field and hospital, then the Confederate Medical Corps was composed of about the following : Surgeons, 1,927; Assistant Surgeons, 3,834. Total, 5,761.

This estimate places the number of surgeons and assistant surgeons at too high a figure, as may be shown by the following considerations:

(*a*) Many regiments and battalions had not more than 2 officers.

(*b*) The casualties of war were much more numerous, and promotion was much more rapid amongst the line officers than on the medical staff.

A more accurate estimate of the actual number of medical officers actively engaged in the Confederate Army during the war of 1861–1865 may be based upon the number of regiments, battalions and legions of infantry, cavalry and artillery, furnished by the individual States during the Civil War.

Total Number of Regiments—Infantry, 519; cavalry, 125; artillery, 13. Total, 657.

These regiments were furnished by the States as follows:

Regiments of Infantry, Cavalry and Artillery.—Alabama, infantry 57; cavalry 3; artillery —. Arkansas, infantry 34; cavalry 6; artillery —. Florida, infantry 9; cavalry 3; artillery —. Georgia, infantry 65; cavalry 11; artillery —. Kentucky, infantry 11; cavalry 9; artillery —. Louisiana 34; cavalry 1; artillery 1. Maryland, infantry 1; cavalry —; artillery —. Mississippi, infantry 51; cavalry 4; artillery 1. Missouri, infantry 15; cavalry 6; artillery —. North Carolina, infantry 58;* cavalry 6; artillery 4. South Carolina, infantry 33; cavalry 7; artillery 3. Tennessee, infantry 67; cavalry 12; artillery —. Texas, infantry 22; cavalry 32; artillery —. Virginia, infantry 64; cavalry 19; artillery 4. Confederate 8; cavalry 6; artillery —. Total infantry 519; total cavalry 125; total artillery 13.

Grand total of regiments 657; total number of battalions—infantry 67; cavalry 28; artillery 50. Total number of battalions 145.

Total legions—infantry 13; cavalry 3; artillery —. Total 16.

Total nnmber of battalions 161. Total number of regiments 657. Total regiments, battalions and legions, comprising the Confederate Army during the war of 1861–1865, 818.

If one surgeon and two assistant surgeons be allowed to each command actively engaged in the field during the Civil War of 1861–1865, the number would be as follows:

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*North Carolina had 75 regiments, 13 batallions.—*Roster N. C. Troops.*

Surgeons 818; Assistant Surgeons 1,636. Total 2,454.

The Medical Officers of the Confederate Navy Numbered—Surgeons 22; Assistant Surgeons 10; Passed Assistant Surgeons 41. Total medical officers C. S. N. 73.

If to the above be added the surgeons of the general hospitals, recruiting and conscript camps, the entire number of medical officers in the Confederate Army during the war of 1861–1865 did not amount to 3,000.

The Surgeon General of the United Confederate Veterans has endeavored to construct an accurate Roster from his labors in the field and hospital during the war and from the official Roll of the Confederate armies in the field, and thus far he has been able to record the names and rank of over 1,000 Confederate surgeons and assistant surgeons.

The coöperation in this most important work is solicited from every surviving member of the Medical Corps of the Southern Confederacy. When perfected the Roster will be published as a Roll of Honor and deposited in the archives of the United Confederate Veterans.

THE DETERMINATION OF THE NUMBER AND CONDITION OF THE SURVIVING CONFEDERATE SOLDIERS WHO WERE DISABLED BY WOUNDS AND DISEASES IN THE DEFENCE OF THE RIGHTS AND LIBERTIES OF THE SOUTHERN STATES.

To accomplish this important work the following inquiries have been addressed to the Governors of the Southern States, namely, Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, North Carolina, Tennessee, Texas, Virginia:

Circular No. 2.

Office Surgeon General United Confederate Veterans,
156 Washington Ave., 4th Dist., New Orleans, Feb. 9, '90.

To His Excellency, ———, *Governor* ———, *State of* ———*:*

The attention of your Excellency is respectfully directed to the fact that in the year 1880 the Association of the United Confederate Veterans was formed in New Orleans for historic, social and benevolent purposes.

Our illustrious Commanding General, His Excellency, General John B. Gordon, has ordered the assembling of the Confederate

Veterans in Chattanooga, Tennessee, the 3d of July, 1890. The welfare of the United Confederate Veterans will be materially promoted if your Excellency will furnish the Surgeon General with the following data :

1. Number of troops furnished to the Confederate States of the State of ———.

2. Number of killed during the Civil War of 1861–1865.

3. Number of wounded during the Civil War of 1861–1865.

4. Number of deaths by wounds and disease.

5. Number of Confederate survivors now living in the State of ———.

6. The amount of monies appropriated by the State of ——— for the relief and support of the survivors of the Confederate Army from the close of the Civil War in 1865 to the present date of 1890.

7. Name, location and capacity of all establishments, hospitals, or homes, devoted to the care of the married sick and indigent survivors of the Confederate States Army.

8. A detailed statement of the monies expended by the State of ——— for the support of the maimed, disabled and indigent survivors of the Confederate Army.

Respectfully your obedient servant,
JOSEPH JONES, M.D.,
Surgeon General United Confederate Veterans.

It was earnestly desired that prompt and full reports on the part of the chief Executives of the Southern States would have enabled the Surgeon General to place in the hands of the Commanding General of the United Confederate Veterans, at the first reunion on the 4th of July, 1890, full statistics of the number of disabled Confederate Veterans cared for by the individual States.

Replies have been received from only six of the thirteen States of the late Confederacy, and in three of these States it appears that no official assistance has been rendered by the State authorities to the Confederate Veterans of 1861–1865.

The Southern States are morally bound to succor and support the men who were disabled by wounds and disease in their service and the widows and orphans of those who fell in battle.

The Confederate soldiers who engaged in the struggle for constitutional liberty and the right of self-government were neither rebels nor traitors; they were true and brave men, who devoted their fortunes and their lives to the mothers who bore them, and their precious blood watered the hills, valleys and plains of their native States, and their bodies sleep in unknown graves, where they rest until the last great trump shall summon all alike, the conqueror and the conquered. The survivors have no government with its hundreds of millions for pensions; in the loneliness and suffering of advancing years and increasing infirmities they can look alone for help to the States which they served so faithfully in battle, in victory and in defeat.

The noble soldiers who composed the illustrious armies of Northern Virginia and Tennessee made a gallant fight against overwhelming odds for what they believed to be sacred rights and constitutional liberty. The contest was decided by the sword against them.

These *matchless soldiers* accepted the issue in good faith, they returned to their homes, they resumed the avocations of peace and engaged in building up their broken fortunes of home and country.

These brave soldiers have discharged the obligations of good and peaceful citizens as well as they have performed the duties of thorough soldiers on the battlefield.

It has been well said that no country has ever produced braver or more intelligent and chivalrous soldiers, or more industrious, law-abiding and honorable citizens than were the soldiers who surrendered with the Confederate flag: the earth has never been watered by richer blood than that shed by the noble ones who fell beneath its folds.

I have the honor, General, to remain
Your obedient servant,
JOSEPH JONES, M.D.,
Surgeon General United Confederate Veterans.

DIED.—William Brodie, ex-President of the American Medical Association, died in Detroit, July 30.—*Cincinnati Lancet-Clinic.*

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FABIANA IMBRICATA.

AN EMOLLIENT, SEDATIVE AND DIURETIC IN DISEASES OF THE URINARY ORGANS.

OF THE remedies which have been added to the materia medica none so thoroughly as Pichi have been proven to possess specific action in certain hitherto difficultly curable conditions.

Pichi is undoubtedly a valuable sedative and emollient in inflammation of the mucous membranes of the urinary organs. It possesses also considerable diuretic action.

In cases of vesical catarrh, acute or chronic, following a mechanical cause such as gravel or calculus, or a uric acid diathesis, this remedy will quickly modify the urinary secretions, calm the irritability, and favor the expulsion of the gravel and calculi that can be passed through the urethra.

It favorably modifies also chronic purulent mucus secretions. Its action on the affections of the liver must be attributed to its diuretic properties, though it is recommended for icterus, hydropsy, and dyspepsia due to insufficient biliary secretions. In this case the essential oil, when absorbed and carried into the circulation, acts as a stimulant on the secretory apparatus in general, but the specific action of Pichi is directed without doubt upon the organs of the urinary apparatus.

The history of its introduction is an interesting one. Drs. Lucien Boyer, Limousin, M. Planchon, C. Paul, Dujardin-Beaumetz, and many others, have reported their favorable experience with this remedy. It is stated that Pichi was used as early as in the last century for the treatment of certain diseases of goats and sheep. According to mention by Ruiz et Pavon the peasants of Chili employed the drug empirically long ago to combat inflammation of the urinary tract, and considered it as a valuable remedy to dissolve and disintegrate calculi.

Reprints of its history, botany, chemical composition and therapeutic properties, as presented in reports from the experience of physicians in hospital and private practice, and in the Working Bulletin for the collective investigation of Pichi, will be mailed physicians requesting them.

The pharmaceutical preparations of Pichi are as follows :

FLUID EXTRACT AND SOLID EXTRACT PICHI, AND SOLUBLE ELASTIC CAPSULES PICHI.

Each capsule contains four grains of a specially prepared extract representing the active medicinal constituents of thirty grains of the drug.

The general appreciation by physicians of the great variability in preparations of Pichi, most of which have been found to be entirely worthless, and which depend wholly on the nature of the crude drug employed, has led to daily inquiries concerning the stock from which preparations are made. We therefore beg to state, for the information of physicians and pharmacists, that our entire stock of Pichi is collected for us in Chili by a special collector, located and maintained at great expense in the district that has been found to produce the best article, and that such stock consists wholly of small tops, all branches and trunks being rigidly excluded.

To physicians who have opportunity and desire to clinically test Pichi we will send a sufficient sample and literature descriptive of this drug.

PARKE, DAVIS & CO.,

DETROIT AND NEW YORK

THE SANITARY ANALYSIS OF WATER.

By F. P. Venable, Ph.D., F.C.S., Professor Chemistry University of North Carolina and member of the N. C. Bd. of Health.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

I fear that this paper will seem rather a confession of ignorance and of inability to cope with the difficulties of the problem, on the part of the chemical profession, than one bringing to you instruction and aid. But I shall at least point out to you what are those difficulties and how great they are, and so make some excuse for our failure to meet them. Of course we have made some progress toward the solution of these questions, but the solutions are, as you will see, imperfect

I wish to speak of the subject with special reference to the water-supply of this State as being of most immediate interest to us.

We learn from the very instructive paper of Dr. Bahnson, the present President of our State Board of Health, delivered at the first Convention of the North Carolina Sanitary Association, that only ten of our cities and towns have systems of water-works in popular use. This leaves a great majority of our population dependent either upon springs or wells. Even in some of the towns boasting of water-works the supply is drawn from shallow wells.

At the risk of wearying you, I will repeat, in part, that which was said in the address just quoted about the possibility of pollution of such water-supplies. It is only by repetition that the lesson can be thoroughly learned, and you must learn it, if as physicians and sanitarians you would do your duty in this matter.

We must not look for such a thing as absolutely pure water, because this is unknown outside of the chemist's laboratory, and would neither be palatable nor wholesome if we could procure it for general use. All natural waters contain foreign matter, and there is therefore such a thing as a normal impurity. We class under this heading the oxygen, nitrogen and carbonic acid washed out of the air, and, in small amounts, certain of the commonest mineral matters dissolved from the earth. These we expect to find in all natural waters, as the rain and the surface-water have gotten their materials from the air and soil. If either air or soil contain matter injurious to health, il is easily possible that the water can become noxious in its passage through them.

Leaving out of consideration the hurtful substances sometimes occurring in the air, it is evident that where the soil is impregnated with filth or decaying matter, the water flowing over it and seeping through it will become polluted. I well remember a summer spent in a small town whose water-supply came from springs at the foot of a hill upon whose sloping sides the cemetery was placed. So bad was the water that, in fifteen minutes after being drawn from the hydrant, it became too offensive to be left in the room. Was it surprising that, out of five of us, three had typhoid fever and the two not affected attributed their escape to precipitate flight?

Whether a spring or well-water, then, is pure, in the ordinary sense of the word, depends, first, upon the freedom of the surrounding soil from sources of corruption; and, secondly, the chances the soil and the water have of freeing themselves from pollution. It is safe to take as a rule that no soil in a thickly settled neighborhood is free from filth and decaying matter. With no system of drainage nor burning of garbage, with privies, pig-styes and stables huddled in among human dwellings, the ground becomes coated with a covering of organic refuse, and as this collects from year to year the soil may become saturated to a great depth. How close stables, privies, etc., may be to a well without contaminating its water depends upon the nature of the soil, whether sand, clay or rock, and upon the conformation or dip of the strata.

The soil has a certain power of freeing itself from these contaminating materials, being aided in this by the oxygen of the air, the roots of plants and certain organisms existing in the soil. The water is partially freed from these materials by filtering through the soil and the absorbed oxygen in it can also oxidize these matters partly, but the absorbed oxygen is soon used up, and even a great depth of soil can become impregnated with filth, and so far from acting as a filter to remove impurity, gives up pollution to fresh water. Of course a shallow well, with no great deph of soil for filtration, is easiest polluted, but the pollution of one much deeper is only a matter of time.

It needs no discussion in these days to convince one that impure water is unhealthy and that water polluted in certain ways can be a conveyer of most dangerous diseases. A noteworthy proof of this was told me a few months ago by a former member of this Society. In a small city where a pure water-supply had been introduced some three years before, there had since occurred sixty-five cases of typhoid fever. Only three of these were in families using the pure-water-supply. The remainder made use of the old wells of the town, which should have been closed by law.

It is needless to multiply cases to prove that water can convey disease. The question rather is, What sort of impurity and how much must the water contain in order to cause disease? The chemist must decide these points when called upon to make a water analysis for sanitary purposes, and his task is a difficult one.

First, as to the kind of impurity which should be classed as dangerous to health. We would bring under this heading all dejecta of animals and decaying organic matter. Even if not absolutely dangerous in themselves, they form excellent media for the propagation of dangerous organisms, and it is the sanitarian's duty to avoid such conditions.

Dr. Mallet says in his Report to the National Board of Health: "If the theory be accepted, which has so much in its favor, attributing the production of disease by organic matter in drinking-water not to any specifically poisonous substance or substances, but to the presence and action of living organisms, it seems quite conceivable that a water containing organic matter of any kind, including vegetable matter, may be harmless at one time and harmful at another, when perhaps a different stage of fermentation or putrefactive change may have been entered upon, and special organisms may have made their appearance or entered upon a new phase of existence. Thus there might possibly be safety in drinking a peaty water, or water filtered through beds of dead forest leaves, when fresh; danger when, after a certain amount of atmospheric exposure, bacterial organisms had become developed; and safety again, perhaps, after the growth of such organisms had fallen off, and more or less of the available organic matter had been consumed."

That Dr. Emmerich drank dilute sewage for a number of days in succession and persuaded several of his patients also to do the same without ill-effect, is therefore by no means a proof that such water is not dangerous.

Our attention must be turned, then, to this other kind of organic impurity, the organized, animate matter, low forms of life, organisms capable of causing specific disease. These consist also, of course, of organic matter, and are nourished by it. Organisms of some kind are present in all waters, and we must distinguish here, also, between the non-dangerous disease-producers or pathogenic.

It is towards this kind of impurity that attention is most directed of late. I think the aim of the chemical analysis is coming to be the answer of the question : "Is this water one containing the materials favorable for a flourishing growth of such organisms." And if the answer is affirmative, the water should be rejected because recent research has pointed out that these enemies to health are lurking for us in both air and soil. A recent note collating what is known on the subject appeared in the *Sanitary News* for May 3, 1890. It is stated that the superficial strata of the earth are extremely rich in pathogenic germs. A foot or two below the surface they cease to exist. Soil rich in organic matter is not favorable for their development. Causes of death of these pathogenic germs are first, exsiccation, the light of the sun and saprophytic bacilli. The walls of a well are a prolongation of the superficies, and are favorable to the life of the germs.

Water, then, in a favorable condition for the propagation of these germs, soaking through colonies of them, carries them on down into the well, where exsiccation is impossible, the solar light never comes and the sapraphytic bacilli are overworked.

I should include among the injurious impurities mineral matter in abnormal amount, but this is easily detected by chemical analysis, and need not be referred to again.

In an analysis of water for sanitary purposes, then, sewage and similar fermenting or decaying organic matter, are the things to be looked for. As to the amount of such impurity which may be present without prejudicing health, it is best to be on the safe side and reject all waters where even the slightest contamination is proven. It is right here that one of the main difficulties lies. The amounts to be determined are so exceedingly small that even our most refined methods of analysis sometimes fail us. In reporting such an analysis we give the amounts in 100,000 parts, but to be accurate they must be determined as parts in 1,000,000, and are frequently so reported.

While this exceedingly small amount of organic matter, often to be found in dangerous waters, makes the analysis more difficult, it may be pointed out that it also militates against the theory that it is the organic matter itself which is noxious.

Dr. Mallet reports in regard to some of the samples of water analyzed under his direction in the course of his research for the National Board of Health: "If the whole of the organic carbon and nitrogen found in such waters as Nos. 35 and 36, of the highly dangerous character of which there can scarcely be a doubt, existed as strychnine, it would be necessary to drink about half a gallon of the water at once in order to swallow an average medicinal dose of the alkaloid. It is not easy to believe that ptomaines or any other chemical products of the putrefactive change, as yet observed, can possess an intensity of toxic power as very much greater than that of the most energetic of recognized poisons. A second difficulty lies in the ease and rapidity of change in the original organic matter. It is scarcely ever practicable to examine the water for the dejecta or other organic matter direct. We must know something of the products of the putrefactive changes and search for them. This means, of course, looking for the greatly smaller parts where the whole was so small as almost to elude us, and furthermore it means a great deal of inferential work, often of the most misleading nature. The products may have come from some comparatively harmless vegetable source, instead of dejecta.

The determination of the total organic matter present, by oxidation or combustion, which is done in all ordinary analyses, gives no reliable indication as to the sanitary condition of the water, and needs the confirmation of other tests. As the nitrogenous matter is the most dangerous, and more commonly animal than vegetable, the analysis is generally directed to the determination of the ammonia, or nitric acid, or nitrous acid resulting from its decomposition. In one of the methods the decomposing organic matter is made to yield its nitrogen, as ammonia, by boiling with an alkaline solution of potassium permanganate. Wanclyn rejects all water as dangerously impure that contains over 8 parts of such ammonia in 1,000,000 parts of water.

As nitrous acid can occur in the purest of water, it is difficult to fix a limit beyond which we can say that the water containing it has been contaminated. It is usual to say that in anything greater than traces, it points to decomposing organic matter. In analyses it is reported as combined, hence under the heading of nitrites.

Nitric acid, present as nitrates, may occur in uncontaminated water up to 1.5 parts in the million, and hence it is only when it exceeds this amouns that it is regarded as a danger-signal.

As fœcal matter, and urine especially, contain common salt or sodium chloride, chemists carefully determine the chlorine in all drinking-waters, but the limit here cannot possibly be fixed as salt occurs in all soils, and even in the atmosphere. Two-thirds of the wells that I have examined in the small town in which I live are strongly impregnated with salt (using the word strongly in a chemist's sense), and I do not know whether I should refer it to sewage or the natural soil.

Time fails me to discuss the question how far these limits fixed by the chemist are justifiable, or, in general, how reliable these danger-signals are. It is a question over which chemists, individually and associated, are greatly worried at present. Certain it is that the number of errors made by analysts in their judging and condemning waters has brought discredit on the system in the popular mind.

There is one important adjunct to the chemical analysis which I must not fail to mention, and that is the microscopical examination. This applies not only to the sediment from the water, but to the water itself. Some suitable nourishing medium, as gelatine, is inoculated with a measured amount of the water and then exposed to a temperature favorable to the growth of the organisms. The number of "colonies" of organisms is then counted, and from that the relative richness of the water in such germs can be estimated. If this were all, it would be of little or no value. The examination must go further, and the microscopist must tell us whether these organisms are pathogenic or not. The purest water will in a short time absorb many different kinds of germs, on standing exposed to the air.

I have referred hitherto only to analyses which must be carried out by experts. Are there no tests which can be applied by the general public, the great uninitiated, to distinguish between good water and bad, between the pure and the dangerous? I earnestly wish that there were such tests, but as yet nothing sufficiently delicate to ensure absolute reliance is known.

We are not without entire approximate rough tests, however, which can greatly aid us. In the first place, we can make better use of the tests with which nature has provided us—the senses of sight, taste and smell. In some cases the senses of taste and smell exceed many times in delicacy the most sensitive of chemical tests.

The water that looks, tastes or smells foul, should be unhesitatingly rejected for drinking purposes. Of course by looking foul one does not mean a merely muddy water. I know a well-water that has been used with effective results, as far as the causing of sickness and fever is concerned, which, when held toward the light, revealed great squirming live things and smelled most abominally after a short standing. And yet that water was used, in spite of such evidence of its pollution. The owner seemed to distrust the evidence of his senses, and asked to have a chemical analysis made. Is it ignorance, or economy, or criminal carelessness that causes such folly ?

There are waters which are dangerously impure and yet reveal this impurity neither to look, taste, nor smell. Sometimes we can still test such by the smell, concentrating the impurity by means of ether in the manner described a few months ago in the NORTH CAROLINA MEDICAL JOURNAL, and then smelling the residue after the ether has evaporated. One can take a pure water and add to it urine in amount too small to be detected by the smell, and still detect it by the ether method. But even this test does not go far enough. And it is easy to surmise that there may be dangerous organic pollution without any smell at all.

There are tests, like the potassium permanganate test, and the silver nitrate test, which go still further in the detection of organic matter and which can be carried out by those without special training, but they are too indefinite in their interpretation to make it worth while to mention them here.

This is an important field of research for the sanitarian. To find an easy, simple, far-reaching, reliable test for dangerous pollution would be an invaluable discovery. I cannot say whether such a discovery is even possible or not.

As an addendum to this paper, giving some of the salient points of water analysis, it may be useful to mention two methods of purifying water dangerous or suspected of being dangerous. The first and simplest method is that of boiling. While boiling does not remove the organic matter, it destroys the germs and all living organisms, so that the water becomes harmless and can be used without fear. This method, of course, does not free the water from any mineral matter contained in it, does not remove hardness nor suspended matter, and does not necessarily improve it in appearance. As there is loss of absorbed air the water will be somewhat less palatable than fresh water, having a stale taste. If the kettle or vessel used in boiling is not scrupulously clean it also will confer a foreign and unpleasant taste. These objections are not serious enough for one to think of risking his life with an impure water in preference to drinking it boiled, but they do interfere with the general use of boiled water where pollution is only suspected.

The second method of purification is by using alum. An old method and often used on the large scale, but not generally considered applicable on the small scale. It was only a year or so ago that Dr. Leeds discovered its peculiar efficacy in removing minute organisms. A method for using alum on a small scale has been elaborated by Dr. Austen, and was reported in the *Sanitary News* of March 8, 1890.

In the presence of the ordinary calcium bicarbonate of natural waters alum gives a gelatinous precipitate, entangling suspected matter and germs and allowing of their easy removal by filtration. A funnel can be found in nearly every household, or a cheap one can be gotten at the druggist's along with some cheap filtering paper, and the mode of using it is easily learned. The amount of alum need not, as a rule, exceed two grains to the gallon. The alum is best kept in a solution of such strength that a teaspoonful contains a grain. This solution can be made by dissolving 128 grs. of alum in a pint of water. "A gallon of water is placed in a clean tin pail and two teaspoonfuls of the alum solution are added. It is then well stirred and mixed with a clean tin dipper. It is best to keep the pail and dipper for this use alone. They should be kept scrupulously clean. After mixing, the water is allowed to stand five or ten minutes and is then poured on to the filter. The first half-pint should be rejected. One filter can be used for several gallons of water, but should then be thrown away. The funnel also must be kept clean." By a little mechanical ingenuity and arrangement of syphons the filtering can be made continuous and self-acting.

I make no mention of the many patent filters so highly recommended. Some are good, some bad and all dangerous when not properly watched and cleansed.

I cannot close without some reference to the dangers from impure ice. It is well known that freezing does not fully purify water and by no means destroys the organisms in it. Polluted ice is as dangerous as polluted water. Warning in this direction is especialy needed this year, as the past winter was too mild for the ice-crop to be gathered from the great rivers of the North with their free-flowing, comparatively pure water. The report is that the ditch, the pond and the marsh have been skimmed to even partially fill the the great storehouses. There may be some exaggeration in this, but there is danger. There is always danger where the lives of the community are left at the mercy of unscrupulous dealers.

I think the local Boards of Health of the State should make it their duty to enquire into the source of supply of water used in the many ice factories established and proposed, and insist on the best water being used; for unless such watchful care be exercised, these too can become effective agents in spreading disease.

CAMPHOR AS A SOLVENT OF IODOFORM.—According to Herr Sarzeau, the addition of camphor to ether or alcohol increases the quantity of iodoform it is capable of dissolving (*Pharm. Cent.*, April 17, p. 236). To this Herr Haffer adds that olive oil saturated with camphor will dissolve as much as 6 per cent. of iodoform.—*Pharmaceutical Journal and Transactions.*

THE ASHEVILLE MEDICAL REVIEW.—We have received the first number of the *Asheville Medical Review*, edited by Frank T. Meriwether, M.D., and H. Longstreet Taylor, A.M., M.D., a new monthly medical journal from the town of Asheville. We welcome the new journal to the field of labor and wish them success. From the appearance of this number we will obtain some definite knowledge of the climate of the mountain regions of North Carolina as their work is developed, and doubtless this will be welcome information to the medical profession.

ELECTRICITY IN THE TREATMENT OF WOMB DISEASES.

By H. O. Hyatt, M.D., Kinston.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.)

The last four years has witnessed great activity in the investigation of the natural and remedial properties of electricity, especially in its application to the cure of affections of the uterus and surrounding tissues. No time can be more fitting than the present to carefully review the work done in this field, to determine the value of the researches made by the slow, plodding man of science, and estimate the claims of the enthusiast who sees in every new remedy a cure-all.

We are aware that this safe and positive method of dealing with uterine disorders is making slow headway with the rank and file of the profession. We have not far to go to learn the cause. Years ago when the physics of electricity was little understood, members of the profession thought they saw in the supposed subtle fluid a grand remedy, one that was calculated to add new strength to wasted muscles and new vitality to weakened nerves. Doctors everywhere bought Franklinic machines and little whirly-gig arrangements that went by a crank. Thoroughly imbued with the idea that these woudrous machines were manufacturing double currents of electricity which were always running, jumping, skipping and hopping in opposite directions, would chase disease from the body and make the fortunate possessor of these curious shocking machines famous. The first few cases, especially if they were confiding, doctor-loving women, got well, as if touched by the hands of a magician. The doctor grew proud of his battery and invited the curious and venturesome to take hold of the handles and be shocked. "Bye and bye" the shocking machine grew to be an "old thing" in the neighborhood. The boys said they did not see how that thing could cure anybody, and the boys were right. The first few cases of cure were due to psychic influences entirely, or possibly once in a great while, of the multitude of divers diseases that were submitted to this treatment, a case was stumbled upon that it suited, and a brilliant cure was the result. Such a case has fallen under our observation. About fifteen years ago the writer bought a Faradic battery and began the study of electricity in a desultory way. We did not get along very well with it. In only a few cases did we get any good result. Our battery soon got "out of fix" and was laid aside. A medical friend whose goodness of heart was only equalled by his ignorance of scientific medicine, took a fancy to the dilapidated old thing. We insisted on his accepting it as a present. He sent it to New York for repairs. He was the proudest man of his battery we ever saw. He carried it everywhere and used it for everything and on all occasions. In fact, we think he slept with it. Among the many cases that fell under the charge of the battery was a paralytic who had not been out of his house in fifteen years. He "mended fast," and in thirty days was in the swamps squirrel-shooting, very much to the disgust of his former medical attendants. My friend's reputation grew and in a short time he became a formidable competitor to the neighboring doctors, who were really well qualified men, and all on account of this one lucky hit. Fortunately for the community, he soon outgrew his suddenly acquired fame and had to remove elsewhere to get practice.

After a while the well-thinking and conscientious doctors grew skeptical of this curious and ill-understood novelty, and the machines were given over to the dust and cobwebs of the trumpery closet. We next hear of these appliances in the hands of the quacks, that grand army of enthusiastic frauds, who have taught the profession so many valuable lessons they have been slow to learn, such as movement cures, massage, etc., etc. It is only within the last few years and after the physics of electricity had been worked out by men unconnected with the medical profession, and instruments invented to measure the quantity and strength of the current, that the brain and energy of the profession has studied the physiolgical effects of electricity in a scientific manner. To-day we have, in the various forms of electricity, remedies, whose action is as well understood as a vast majority of those we have been using for centuries.

The doctrine of the correlation and conservation of energy or force, is so generally, or ought to be, so well understood by every one, that we will waste no time in attempting to show the manner in which force is always conserved and changed from one form to another, as motion to heat, heat to electricity, electricity to light, and so on, but will enter at once upon the natural phenomena produced by electricity.

For medical purposes we rarely have use for any save Galvanic and Faradic electricity. These forms used to be designated as the continued and interrupted current. Faradic electricity is something more than interrupted electricity. The same quantity of electricity passing through a rapidly vibrating current-breaker does not produce the same physiological effect that the same amount would passing through an electrical coil, that is, wire wrapped around a magnet. In the latter case, if the current passed through what is known as the primary coil, its effects would be soothing. In the former it would produce a jerking sensation, or a rapid contraction of the muscles accompanied with distinct shocks, though in both cases the amount of electricity would be exactly the same. The difference in the physical condition of the current produces a difference in the physical effects. It has often been a source of amusement to see parties who owned Faradic batteries changing the current from the primary to the secondary and pulling out or lengthening the helix, imagining they were pntting on more electricity, while in fact, they were losing all the remedial or beneficial effects of the current by changing its physical condition, and therefore subjecting the patient to the different physiological effects. While it may be amusing to a bystander to see patients squirm and shrink from the current, such proceedings stamps the doctor who resorts to such tricks to make an impression on his patients as a heartless fool. No man who understands disease and the physiological effect of the different currents, will ever resort to any such tricks, but will use whatever current will do the most good.

Galvanism being the variety of electricity most used in medicine, we will give some space to the discussion of its nature and the physical effects it produces on the body. Our chief source of galvanism is indirectly from chemical combination. Two different metals or bodies, generally pieces of zinc and carbon, are arranged to suitable fastenings, with a non-conducting substance between them, and immersed in a chemical solution. The chemical will attack the metal it has the most affinity for and form a new compound, but the process will take place slowly, so long as the two bodies called electrolytes are kept apart, and there will be no electricity generated, or rather liberated; we use the term liberated advisedly, because the force we know as electricity already existed in the elements and chemical fluid in the form of latent heat, and is liberated or turned loose in the condition of electricity. As soon as the wires extending from the elements are brought in contact we have what is known as a circuit formed, which affords the liberated electricity a means of escape, and by chemical action the battery fluid takes hold or eats away the elements more rapidly. Chemical combination liberates a force which is converted into electricity, unless the electricity was stored up in the elements as heat is when it is said to be latent, which in its turn undergoes a change and is dissipated in the surrounding atmosphere as heat or motion, and so on; never being destroyed, but constantly changing its physical condition. Electricity is liberated by chemical combination, and when passed through a body containing salts and acids in solution will cause them to break up, the salts going to the negative pole and the acids to the positive. We thus see a force started by chemical combination producing chemical decomposition. It is this chemical decomposition that concerns us in the study of the curative action of galvanism. A familiar experiment to demonstrate this fact is made by putting the poles or handles of the battery on different sides of the cheek. The side on which the negative pole is placed will taste salt, the other side acid. At a noted and very prosperous quack establishment in Pennsylvania I am informed they are in the habit of playing upon the credulity of patients by doing that simple experiment and telling the patients that they give a different and stronger electricity than other doctors can, and it will do them more good.

In the application of galvanism to the tissues the first laws of Faraday should be specially borne in mind.

First Law.—The decomposing force or chemical power will be the same in all parts of the circuit.

The chemical decomposing power of galvanism does not seem to be all that is concerned in the resolution of the diseased tissue compounds. The collection of the acid and alkaline constituents of the tissue at the positive and negative poles, respectively, is no doubt due as much to electrical osmosis as to chemical decomposition. Is all the electrical energy expended in this way? We venture to say it evidently is not. The tissues offer great resistance to the passage of electricity, as electricity. Other bodies offer great resistance. The familiar example of the galvanic cautery and the Edison electrical light are such in which it is demonstrated to the most careless observer that the electrical energy, which, like all other forms of energy, is as indestructible as matter, is transformed by the peculiar physical properties into motion, which in its turn from the rapid vibrating movements so induced is transformed into heat, and if the original electrical energy is sufficiently strong, the loop is soon in a state of incandescence. If we should admit that that part of the electricity is correlated into, and dissipated through, the body as heat, we still have the liberated latent energy of the tissue compounds which has been liberated by the catalytic action of the current as an unaccounted for factor in the process. Are we warranted by *a priori* reasoning, or would it be an unwarrantable stretch of the imagination to assume that this liberated latent energy, instead of being dissipated as heat or some useless form of energy was correlated into vital energy and afforded sufficient dynamic power to raise the imperfectly developed cell of diseased tissue to the well-developed cell of normal tissue, and in this way acted as a curative or remedial agent? Whether we accept this theory to account for the physical changes produced by galvanism or adopt some other, the fact that galvanism will produce absorption and change in abnormal tissue remains the same.

Apostoli, of Paris, and Engleman, of St. Louis, are the champions of the new treatment of uterine tumors with currents of great strength. By means of the current-measurer or galvanometer, we are enabled to measure the exact quantity of electricity passing through a body and can by this means measure the dosage as accurately as we could weigh it in grains, if it were a ponderable material. Formerly the quantity was measured by the number of cells in the battery and was very fallacious, because when the battery fluid was fresh the current was stronger, and when applied to the dry skin the amount of resistance was so great that only a small amount could pass into the body. By the use of the galvanometer we can measure the exact quantity and ascertain the exact amount passing within a given time, and by this means learn a great deal more about the dosage and scientific use of this most potent remedy.

Apostoli, Engleman and others use from 150 to 250 milliampéres to reduce fibroid tumors of the womb. Under ordinary circumstances currents of this strength cannot be borne on account of the extreme pain induced thereby. In fact, some go so far as to recommend that the patient be put under chloroform so as to enable them to stand the current. Apostoli recommends that the abdomen be coated with the sculptor's clay so as to dissipate the current over a great part of the body's surface, and thereby lessen the pain. This does not appear to be a wise or scientific method. The fibroid is what we are trying to cure and not the whole abdomen. As the decomposing power will be the same in all parts of the current what can we expect to gain by subjecting so large a surface of healthy abdominal tissue to the decomposing influence of the current.

Neither the enthusiasm of Engleman nor the egotistical fiat of Apostoli can change the operation of a physical law. It may in some quarters be considered as heresy to say so, nevertheless we do think that this method of using electricity, even if it is sanctioned by great names, is inhuman and barbarous. It is the quantity of electricity that passes through a tumor or part of the body that exercises a curative effect, and not the rapidity with which a given quantity can be passed. As much electricity as 5 milliampéres strength can traverse the tissues in twenty-five minutes time as can in one minute at 125 ampéres strength. The weak current continued for a long time gives the patient no pain or inconvenience.

We will admit that covering the abdomen with potter's clay will enable us to pass more electricity into the body than we otherwise could, but it does not the least bit alleviate the pain at the negative pole or needle which is inserted into the tumor. We have tried it and know whereof we speak. We fail to see any use of spreading electricity all over the abdomen when we are trying to get the benefit of its action on a tumor that generally does not fill one-tenth of the abdominal cavity.

Electricity is not a harmless remedy. If its good effects are due to its chemical effect upon the constituents of diseased tissue, why should we submit any more of the healthy tissue to its action than we can possibly help? Certainly no good can come from such a procedure. Were it not that the conservative laws of Nature were too strong to be interfered with by the iron-headed stupidity of ambitious doctors, the profligate use of galvanism would unbalance the vito-chemical laws of healthy nutrition and leave the confiding patient in a bad condition.

We do not mean a wholesale denunciation of the advocates of currents of great strength. Many of them are carried away by the results obtained by the use of galvanism and never stop to inquire if there is not a better way to do it. While we think the method is unscientific as well as unmerciful, the electrical enthusiast has by his ingenuity given us many useful appliances for which we hope we are duly thankful. Indeed, we sometimes think that if it were not for the professional Sangrados the march of scientific progress would be slower than it is. The discursive medical genius is always ready and anxious to leave beaten paths and explore untrodden and unknown fields hunting for gems whose purity and worth are to be determined by the slow-plodding and doubting Thomas, who, if something new or useful is really found, awards him merit and writes his name in the temple of fame. Otherwise they write him down as an ass, and after a fitful season he passes into everlasting oblivion.

The method we usually resort to in the treatment of fibroid tumors of the womb is to pass a needle insulated to near the point through the vagina into the tumor with a moderately-sized sponge electrode on the abdomen and over the tumor, using a current of from 5 to 10 milliampéres from thirty minutes to one hour. We have had cases on hand undergoing the galvanic and ergot treatment at the same time, and with the combined treatment of ergot and galvanism, and we incline to the belief that the latter is the best, though in all cases we were enabled to arrest the growth of the tumor and put the patient in a more comfortable condition. We have during the last twenty years seen and treated a good many uterine fibroids and have not found them so difficult to manage as the text-books would lead one to suppose. It is in other womb troubles that electricity in our hands has been of such signal benefit.

Mrs. T., a blonde, aged 25, came to us suffering with a bearing-down sensation in region of womb, pain in the lower part of abdomen, pain in back and feeling of general lassitude, menstruation normal as to time and quantity, but very painful, compelling her to go to bed and take an opiate. Examination: womb in proper position, canal very small, almost closed. Previously she had been under the care of one of the most distinguished medical men in the State, who had attempted to overcome the trouble by dilating the uterine canal. He succeeded in giving only temporary relief, when the dilatation was made just before menstruation. The trouble in that case was narrowness of the uterine canal, which prevented the free escape of the menstrual blood. Dilatation had been tried and failed, and before we resorted to splitting up the canal determined to use galvanism. Attaching a good-sized uterine electrode to the negative pole of the battery and using a current of 8 milliampéres strength we placed the electrode to the mouth of the womb and by gentle pressure had the satisfaction of seeing the instrument pass into the uterine canal. The redundant tissues of the canal, so to speak, melting down in front of the instrument. The operation was done without pain or hemorrhage, and was repeated once and followed by a permanent cure. This case is one of many of painful menstruation we have relieved by this method.

The following is an illustrative case of the beneficial effects of electricity in a very painful and annoying class of diseases :

Mrs. L. came to me from a neighboring town saying she had run the gauntlet of all the doctors. Every June and September, to use her own expression, she was knocked over and had to go to bed for a month or more. Symptoms: pain in back over region of lower abdomen, troublesome urination, defacation, if not painful, very disagreeable, bowels costive, leucorrhœa, menstruation painful and abundant, general health otherwise good. Examination: uterus in proper position, larger than normal, canal open and free. Around about the body and the whole upper floor of the pelvis there was a feeling of puffiness and thickening of all the tissues; considerable tenderness in region of the ovaries. The case was one of chronic pelvic cellulitis, a disease that may remain comparatively quiescent for a while, to be lighted up at the slightest imprudence on the part of the patient, such as getting the feet damp, or cold, or changing flannels for summer wear. Indeed, the most exciting cause of this trouble is getting the feet wet and cold or during menstruation. One attack predisposes to another until after many successive attacks the unfortunate patient has the ovaries bound down by inflammatory action or has a pelvic abscess and has to face the surgeon's knife before she can hope for a radical cure. This class of cases is very trying to both patient and doctor, but fortunately we have in the galvanic current a remedy when properly applied that will rarely disappoint us. We knew that the ordinary routine treatment would not cure her; she had already been submitted to that by careful and painstaking doctors. We at once put her on galvanism current of 5 milliampéres strength continued for thirty minutes every other day. A few weeks treatment resulted in a cure which has remained permanent. Without galvanism this lady would probably have been compelled to submit to an operation for removal of the ovaries.

Amenorrhœa and insufficient flow has in our hands responded to the faradic current after other means had failed. We do not claim for electricity that it is a cure-all, or that it will cure the majority of uterine disorders, but that there are troubles which do not yield to other remedies as to this agent.

A young friend suggests that we should say something about how to learn the proper way to manage electricity. By all means learn something about it. We would recommend the careful study of "The Correlation and Conservation of Energy," by Youman; "Dechanel's Natural Philosophy," by Amory; "Electrology," by Ranney; "Electricity," by Erb, etc.

In conclusion, we will say that the ownership of an electrical outfit does not constitute a doctor a practical electrician, any more than the ownership of a telescope would make one an astronomer. If you don't intend to master the technique of the science let it alone and send your patients to some one who has done so. A slip-shod, half-handed way of doing a thing brings the method into disrepute and reflects discredit upon the faculty.

Two Interesting New Drugs.—Among new drugs recently investigated are two of much promise, Cocillana and Naregamia Alata. The evidence thus far obtained from clinical experience would indicate that these remedies are likely to prove an important addition to the expectorants and respiratory stimulants now employed. In the spasmodic cough of acute bronchitis, in the hacking cough of phthisis, and wherever there is marked interference with the respiratory function through accumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient. Parke, Davis & Co., who have introduced these remedies, offer samples of them to physicians desiring to test them clinically, also reprints of articles concerning them, free of charge.

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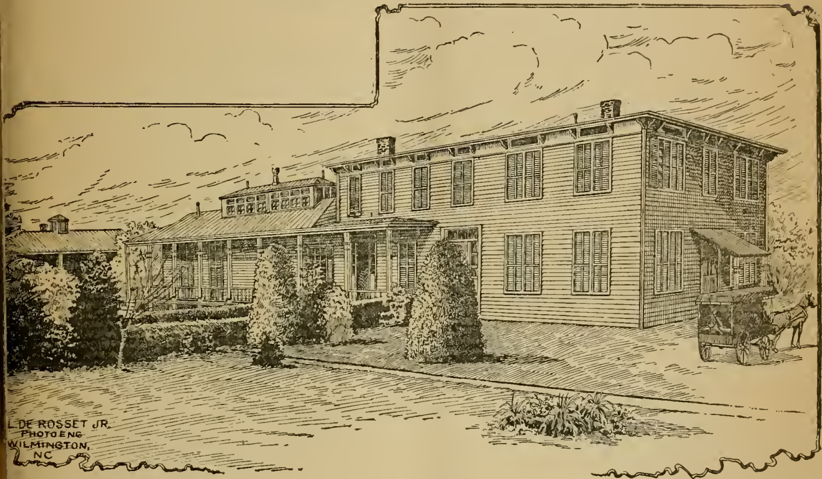

This Hospital was organized to meet the urgent demands of the City of Wilmington and the County of New Hanover. It is under the management of a Committee from the County Commissioners and Board of Aldermen, Col. Roger Moore, Chairman of the Joint Committee.

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ELECTRICITY IN GYNÆCOLOGY.

By J. W. Long, M.D., Randleman.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

In this paper no attempt will be made to define simply the progress made in this department during the past year, but to present in as clear and concise a manner as possible the status of electricity in gynæcology as we find it to-day.

Two forms of the electric current will be considered :

Galvanism, by which is meant a constant, uninterrupted, smooth-flowing current, and

Faradism, or the interrupted current.

Even a superficial knowledge of electro-therapeutics will convince us of the wide difference in the indications for these two forms of electricity. The respective indications will become apparent as we discuss their application to the several conditions to be considered as follows :

Galvanism in Uterine Fibroids.—It has been only a few years (in 1887) (McGinnis, Electricity in Gynæcology, p. 28) since Apostoli astonished the world with statements of his marvelous success in treating uterine fibroids with very large doses of the continuous current.

At first practical men were inclined to doubt these assertions, believing Apostoli to be an enthusiast and electricity as applied by him to this and other affections to be a kind of "cure-all"—not worthy of serious consideration. But the champion of electricity continued to sound its praises till thoughtful men decided to not only test its merits, but to go to see Apostoli and study in his clinic the application and effects of this wonderful agent. I have read the reports of many physicians and surgeons who have thus visited Apostoli, and have yet to see it stated by any of these gentlemen that Apostoli has ever made any false representations as to the effects of electricity in his hands; however much others may have been disappointed in its use, all must admit this eminent experimenter to be careful, painstaking and honest! As a matter of fact, Apostoli does not claim to absolutely cure, i. e., *remove*, (Reamy, Gyn. Tras. 14, p. 126) any case of uterine fibroid with electricity. Some of his followers do claim a small per cent. of absolute cures. (Martin, Elec. in Gyn., p. 64; Hall, *Amer. Jour. Obstetrics*, Dec., 1889, p. 1,255.) What Apostoli does claim, and it is one of the prominent merits of the method, is a very large per cent. of *symptomatic* cures—the tumor shrinks from one-half to two-thirds, thus relieving the *pressure* symptoms, while the *hemorrhage* and *neuralgia* also cease. Dr. Franklin H. Martin (Elec. in Gyn., p. 64), of Chicago, who has made a special study of Apostoli's method, reports from his own experience of 200 cases, 84 per cent., symptomatically cured, with an additional per cent. of actual cures. About 15 cases are still under treatment. Only 3 cases that continued treatment failed to find relief. He has had no death. Apostoli has treated several hundred cases with but two deaths, which he candidly says were due to avoidable causes and should not be attributed to the method. In citing these favorable statistics I am not unmindful of the many unfavorable reports that we are constantly hearing through medical societies, and often from men of acknowledged ability. But these failures by no means prove that Apostoli is wrong. In using any therapeutic agent, even after a correct diagnosis is made, there are many things to be considered.

Dr. Hall (*Amer. Jour. Obstetrics,* Dec., 1889, p. 1,255), who spent several months in Apostoli's clinic last year, says: "His success would seem to be due to attention to all details, rigid antisepsis and careful adaptation of the kind and amount of electricity to the strength and condition of the patient."

The apparatus required in this treatment are:

1. Any battery that will give a continuous, smooth-flowing current to the amount of 250 to 500 milliampéres.

2. An appliance by which the current may be gradually and without interruption increased from zero to the maximum, and turned off in the same manner. Dr. A. Lapthorn Smith says he is convinced that the *Bailey Rheostat* (made by the Law Telephone Company, Liberty street, N. Y.) is the best instrument for this purpose.

3. A *galvanometer* that will register accurately 500 milliampéres. Gaiffe's instrument made in Paris (40 Rue street, Andrew de Arts) is preferable to any on the market. (A Year's Experience with Apostoli's Method.—*A. Lapthorn Smith.*

4. A *large abdominal electrode.* It may be Apostoli's potter's clay, or Martin's metal dish filled with water and covered with animal membrane, or Engleman's absorbent cotton sewed to tinfoil, or Smith's combination of Apostoli's clay in Martin's dish—the point is to distribute the point of contact of the electrode over a very large area, by which means the large doses of electricity are borne. Dr. A. H. Goelet recently exhibited to the New York Obstetrical Society an electrode made of potter's clay of the consistency of putty, with zinc on top of it, the whole covered with absorbent cotton and sewed up in linen, the back being finally covered with rubber. It remains moist for a month. (*Amer. Jour. Obstetrics*, March, 1890, p. 323.)

5. *Intra-uterine* electrodes. When the *negative* pole is used in the uterus an ordinary uterine sound with a hole in the handle to fasten the wire from the battery to will answer every purpose. When the *positive* pole is to be applied to the uterus we must have an electrode insulated to near its end and the exposed tip be plated with platinum or gold. Dr. Goelet has devised a steel electrode which is much cheaper than those mentioned. Apostoli has carbon-tipped electrodes of different sizes. It has been shown that to cauterize the mucus membranes of the uterus a current of 25 milliamperes was necessary for each square centimetre of surface. (Electricity in Gynæcology, p. 65.) Now, when the positive pole is used for its cauterizing effects, by having electrodes of known size, 4 square centimetres, we know that it is necessary to use just 25 milliampéres to each square centimetre, or in this instance 100 milliamperes. Apostoli also employs a substance called *gelosine*, which is injected into the womb, and some metal substance made to convey the current into the mold of the gelosine which fills accurately every part of the uterine cavity.

6. For *galvano-puncture* in the posterior or lateral *cul-de-sac* (they should never be made elsewhere) a delicate steel needle or trocar, protected by a celluloid sheath or canula is employed.

Dosage.—Many have objected to the treatment because of supposed high doses. As a matter of fact, the method stipulates no standard dose, but the number of m. employed is carefully graded to suit each individual patient. The point is to use as high a current as the patient can tolerate without too much sufficiency. The large clay abdominal electrodes make possible currents of from 100 to 500 m.; 200 to 300 m. is as high a current as is usually borne, while many cannot bear more than 75 to 125 m. A limited number (Electricity in Gynæcology, p. 64; A Year's Experience with Apostoli's Method, A. L. Smith, p. 11) of cases have to be moderately chloroformed to use even minimum doses. Usually a tolerance is rapidly established and the dose is increased at each séance as the patient can bear it. The method consists in attaching the positive pole to the abdominal electrode and the negative to the intra-uterine sound. The galvanometer being interposed, the current is gradually turned on, very mildly at first, increasing the strength cautiously. The application usually lasts five minutes, when the current is turned off gradually, taking great care not to break the current, for this would produce a very disagreeable, if not dangerous, shock. The séances are repeated at intervals of two to five days. There are many points connected with the treatment that cannot be emphasized in a paper of this character—as the antiseptic details, rest after the application, etc.

When the tumor is situated in the posterior uterine wall and the anterior wall becomes thinned from absorption, Dr. A. Lapthorn Smith puts the clay electrode on the back, for the reason that the current always takes the nearest route from electrode to electrode, and by this means the tumor is put in the direct track of the current.

If the tumor is of the *bleeding* variety, the *positive* pole is attached to the intra-uterine electrode. *Acids* always collect at the positive pole (making it hæmostatic), and if a current of 25 m. for each square centimétre of the intra-uterine electrode are used, the mucus membrane will in five minutes be so effectually cauterized as to prevent all further hemorrhage. (McGinnis, Electricity in Gynæcology.) When the uterine canal is large and tortuous and electrode with a flexible stem should be employed, and successive portions of the membrane cauterized at each sitting. When the intra-uterine method fails to reduce the tumor and relieve the symptoms satisfactorily, the galvano-puncture is resorted to, though this plan is not to be used indiscriminately. A point is selected in the posterior *cul-de-sac* free from pulsation, a small celluloid tube is placed against this spot and through the tube a very small trocar-electrode is pushed into the tissues not exceeding one or two (Hall says never more than ½ centimétre loc. cit.) centimétres. (A centimètre is = ,393 inch.) The clay electrode being on the abdomen as before, the current is gradually turned on and off as when the intra-uterine plan is followed. From 50 to 175 m. are about the limits of galvano-puncture. The negative pole is attached to the trocar except in cases of bleeding fibroid, or where the patient is of an hysterical temperament, or where the negative punctures are very painful—in these cases the positive puncture is better. Strict antisepsis and rest in bed for two days are always imperative in galvano-puncture.

I cannot better close this part of the subject than by quoting the words of Thomas Keith, whose results in hysterotomy are the best yet attained—"results that Dr. Playfair is pleased to call almost phenomenal." Keith says (*Brit. Med. Jour.*, June 8th, 1889): "What I now plead for is, that for a time all bloody operations for the treatment of uterine fibroids should cease, and that Apostoli's treatment, *as practised by him*, should have a fair trial." * * * "Hysterotomy, which is performed every day for a disease that rarely of itself shortens life, kills every fourth or fifth woman who is subjected to it. This mortality must cease; it is not a question of surgery, it is a question of humanity. Every time that any disease can be cured without resorting to a bloody and dangerous operation, such as hysterotomy, progress is made in an art, and there is a gain to humanity, while surgery is the better for being purged of a deadly operation."

I am glad to add that the method is having a trial, and, while rejected by such able men as Chadwick, of Boston, and (partially so) by Mundé, of New York, it is giving the most gratifying results in the hands of Smith, of Montreal, Martin, of Chicago, McGinnis, of New York, and many others. The tumor shrinks, the hemorrhage ceases, the neuralgia is relieved, constipation is overcome, the patient eats and sleeps better—in a word, the patient seems to have taken a new lease on life, or should I say a new life on the old lease?

The next most important application of galvanism is in *pelvic exudations*. Martin (Electricity in Gynæcology, p. 61) has a vaginal electrode ending in an exposed metal ball, which is thickly covered with absorbent cotton moistened with water, the cotton held in place by a little rubber band. The negative pole being attached to this electrode and the clay on the abdomen, the ball is pressed firmly against the exudate in the vagina. The point is to engage the mass of exudate between the electrodes, and sometimes this can be done better by using an intra-uterine electrode. An exudate will yield more quickly to galvano-puncture (Hall, loc. cit.), but the pain is greater and often chloroform is required. The *negative* pole is usually applied internally in treating exudates, for the reason that the *alkalies* collect at this pole, which accounts for its power to dissolve such deposits. Goelet (*N. Y. Med. Journal*, June 8th, 1890, p. 621) applies the *positive* pole in the vagina at first (afterwards the negative) in all cases that are associated with much pain, because the positive pole is more *sedative.* The dosage in this affection ranges from 75 to 125 m.; turned on and off in the same cautious manner as when treating fibroids. All acute inflammation should have disappeared before beginning the treatment. Martin (Loc. cit.) makes the unqualified statement that any case of exudate from simple thickening of the broad ligaments to complete fixation of all the pelvic organs with an unyielding exudation—may be relieved by a persistent course of galvanism. This assertion is amply sustained by other men of wide experience.

All subacute and chronic inflammatory conditions of the uterus and appendages are relieved by galvanism. Laparotomists who operate for diseased tubes and ovaries claim that the *pain*, which is *the* symptom demanding the operation, is caused by *adhesions.* Now, there is no doubt about galvanism loosening up these adhesions by dissolving the exudate that forms them, thus relieving one of the leading sources of suffering.

We now come to the subject of *galvano-puncture* for *cystic tumors* of the pelvis connected with the uterus, including *hydro-* and *pyo-salpinx.*

This operation has its most able champion in this country—Dr. Augustin H. Goelet, of New York City. In a recent article (Electricity in Gynæcology, p. 11) Dr. Goelet says: "The addition to our resources of the antiseptic power of the galvanic current renders puncture and aspiration by the vagina harmless, when the condition is appropriate and the degree of penetration is limited." He quotes Dr. Bigelow, who, writing from Paris, says: "In the French Academy of Medicine they are discussing methods of drainage by uterus and vagina without the necessity of operating, so that the minds of surgeons themselves are turned in conservative directions. I am sure that the time is in the near future when electricity shall solve the riddle." The method is applicable only in such tumors as are easily accessible from the vagina or may be influenced by the chemical effects of galvanism applied to the endometrium. A very fine canula, about the size of No. 4, French scale, and a steel trocar so adjusted that it can penetrate only a known distance—seldom should it exceed 1 centimétre—are needed in this operation. After thoroughly irrigating the vagina the canula is passed along one finger in the vagina and held against the point selected for puncture; the trocar is then pushed in and withdrawn from the canula; if fluid does not flow the canula without the trocar is pushed in a little farther. An aspirator may be attached to draw off the fluid. After the fluid is evacuated the trocar is partially reintroduced and attached to the negative pole· The clay electrode being on the abdomen, the current is gradually turned on to not more than 50 m. for five minutes. If pyo salpinx is found, the cavity is washed out with an antiseptic solution and the *positive* pole is used because less irritating and more antiseptic. The track of the puncture is thus cauterized, shutting off septic matter from being absorbed. The galvano-puncture may or may not be repeated after the puncture, as the case demands. The puncture is followed by repeated *negative* applications. Pyo-salpinx may sometimes be relieved—the tube evacuated—by applying a carbon- or platinum-tipped electrode in the uterine cavity, the positive pole being attached.

Bloody tumors of the pelvis (hæmatosalpinx, hæmatoma and hæmatocele) are treated *first* with *positive* intra-vaginal applications till the clot is firmly formed, followed by the aspirator to remove the separated serum and *negative* puncture to cause absorption.

For all *bleeding conditions of the endometrium* there is no better, safer and cleanlier treatment than *positive* cauterization.

Dr. Mussey, of Philadelphia, says: "In *simple endometritis* or *uterine catarrh*, galvanic currents, locally applied, are practically infallible. I have never seen a case resist them. The current need not exceed 10 to 35 m." (Electricity in Gynæcology, p. 71.) If *menorrhagia* exists the *positive* pole is used in the uterus for its styptic cauterizing effects, otherwise the negative.

In *stenosis of the os or cervix*, the well-known dissolving and dilating effects of the *negative* pole are all that can be desired. If this condition co-exist with menorrhagia, the negative dilatation of the cervix should be followed by positive cauterization of the fundus.

Bi-polar Faradization.—This is used in two forms—with the *coarse wire,* or current of *quantity,* and the *fine wire,* or current of *tension.* The bi-polar electrodes have both poles terminating in one electrode, separated by an inch or so of non-conducting substance, so that when applied the current must traverse the tissues to get from one electrode to another. The current of quantity is essentially a *tonic* and deserves high rank among this class of resources, especially as it can be applied locally and with the expectation of getting *certain* results. It is indicated in any case of pelvic trouble where there is *relaxation of musculur tissue,* either chronic or acute, e. g., in post-partum hemorrhage, no matter how much the uterus is exhausted, it will certainly contract on applying the coarse wire current in the uterus.

Dr. A. L. Lapthorn Smith (Electricity in Gynæcology, p. 47) has summarized the indications for the fine wire current of tension as follows :

1. *Ovarian pain* (*Amer. Jour. Obst.*, April, 1890, p. 441), where no organic disease can be found. The séance lasts till the pain is gone—10 to 30 minutes. After a few hours the pain returns, but next day (the applications should be made often) it stays away longer, when finally it is permanently relieved after rarely more than 10 sittings.

2. In cases of *abdominal pain due to hysteria.* These are the cases Apostoli has been accused of curing by hypnotism.

3. *Fleshy women* about the age of 30, who *menstruate scantily,* and whose uteri are not well developed. Three intra-uterine applications a week developes the uterus, establishes the flow and relieves this class of patients immensely.

4. In *vaginismus* this treatment is very effective. The condition is due to hyperæsthesia of the terminal nerves, which may be readily overcome by the current of tension.

In *extra uterine pregnancy* a careful review of the literature of the much-vexed question of treatment leads one to the following conclusions :

1. That nature is capable of *absorbing* the fœtus and its membranes *up to the end of the fourth month.*

2. That the *interrupted current* (faradism) *readily destroys fœtal life* without *in any way* endangering the mother, no rupture (Palmer, *Amer. Jour. Obst.* February, 1890, p. 218) ever having been caused by it, or other accident, when properly applied. The faradic should be followed by the galvanic current to hasten absorption.

3. This plan (electricity) should be followed in all cases *prior to the close of the fourth month*, the current being applied according to the sensations of the patient.

4. In *rupture and clearly threatened rupture*, laparotomy should give place to electricity even before the end of the fourth month.

5. After this period and *before viability*, electricity should be used, followed after a time by laparotomy.

6. *After viability* the child should have a chance and electricity should not be employed.

DR. J. H. BAXTER MADE SURGEON GENERAL OF THE UNITED STATES ARMY.—This purely political appointment must cause extreme dissatisfaction and contempt among the old medical officers of the army who have won their way by hard work and regular promotion. We trust the Senate will reject such an unworthy appointment.

A PLEA FOR CIRCUMCISION.—"It is surely not needful to seek any recondite motive for the origin of the practice of circumcision. No one who has seen the superior cleanliness of a Hebrew penis can have avoided a very strong impression in favor of the removal of the foreskin. It constitutes a harbor for filth, and is a constant source of irritation. It conduces to masturbation, and adds to the difficulties of sexual continence. It increases the risk of syphilis in early life, and of cancer in the aged. I have never seen cancer of the penis in a Jew, and chancres are rare."—*Jonathan Hutchinson in Archives of Surgery for July*, 1890.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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Thomas F. Wood, M. D., Wilmington, N. C., } Editors.
Geo. Gillett Thomas, M. D., "

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ELECTION OF OFFICERS BY OPEN BALLOT—SOME OBSERVATIONS ON THE COMMUNICATION OF DR. J. W. McNEILL.

We had room only for Dr. McNeill's correspondence on the subject of the election of officers of the Medical Society of North Carolina by ballot, or we would have given our own observations on the subject at the time.

Dr. McNeill is mistaken about the composition of the American Medical and the American Public Health Associations. The former is composed of regular members and delegates from State Medical

Societies, and comes as near being a "mass meeting" as any we have knowledge of. It is from the delegated members of this body that the nominating and other important committees are chosen. The American Public Health Association is strictly a scientific body, and not composed of delegates. Membership is decided by the Executive Committee, their report being equivalent to an election, and the committee for nomination is an Advisory Council composed of members from each State, selected by the President. Nearly all the work of this strictly scientific association is done in committee, leaving the open meetings free, as they ought to be in a society of the best models, for reading papers and discusing them.

There is no democratic principle involved in ours or in any other scientific body. Such bodies should be founded on no principle but that of learning and accomplishments and moral rectitude, and as these principles do not always beget popularity, many times the reverse, the standard of popularity is in most cases entirely false and misleading.

In our own Society the principle of selection is most justly and elaborately maintained, requiring that applicants for membership shall pass a rigid examination as to educational fitness, and besides producing testimonials of a moral character. Further than this, our Constitution, modeled after that of the American Medical Association, to which Society we are auxiliary, provides for a membership of delegates from the County Auxiliary Associations.

Our Society, therefore, has two elements—that of representation and of selection by personal examination. It is true that part of our machinery is purely theoretical, there being in the State very few organized county associations, and the credentials from these societies are now rarely presented at our annual meetings. But whatever may be the theory of our organization, we adopted many years ago the selection of officers by committee, and in doing so we were in accord with the best societies in the land having scientific objects in view, and remain yet in accord, the fact being that the American Medical, the Public Health and the Association for the Advancement of Science, together with the Association of American Physicians, and all the associations of specialists make their choice of officers by committee.

The reasons are that it gives most of the valuable time of these bodies to professional scientific work, it suppresses the medical politician in some measure, it preserves the best traditions of an honorable profession which, when at its very best, is an aristocracy founded on learning and personal character. If such bodies can be trusted to select their officers by ballot, with the same principle at stake, the fractional part may also be trusted. Past experience does not sustain the general ballot, and we can only repeat that we had better work out with some care the experiment now enforced upon us by law in the election of members of the Board of Examiners and Board of Health, by ballot, before we would be safe in further amending our Constitution.

ANÆSTHESIA AT THE BERLIN CONGRESS.

The address delivered by Professor H. C. Wood, on Anæsthesia, is in the nature of a refutation of the mode of death by chloroform as recorded by the Hyderabad Commission. Dr. Wood is willing to admit that Dr. Brunton's experiments were accurate and skilful, but accounts for the fact that the difference between the mode of death by paralysis of the respiratory centres among the dogs in India, and that of the American dogs who die by heart paralysis, according to his and Dr. Hares' experiments, is that there is a difference in the animals experimented upon. The inference which would be drawn by those who are not wedded to the laboratory methods on the lower animals as adequate demonstrations of the therapeutics on the human subject, would hardly coincide with that of either of the therapeutists. That there is some analogy between the vital processes of all animals must be true, but practical men have not forgotten the experiments made upon dogs by Dr. J. Hughes Bennett, Chairman of the Edinburgh Committee, to determine the cholagogue effects of the mercurials, and what a wrong influence the deductions by the learned experimenter had upon the profession of the world for twenty years. Laboratory therapeutics has its very useful place, but it is not old enough yet to dominate medical thought, and it is shown that it may be made to sustain one or another partisan position, when the experimenters are honestly striving for the truth.

The extract given below is enough to show the spirit in which the opposition to chloroform is carried on :

"In regard to the number of recorded deaths, I shall content myself with accepting the latest statistics at hand, namely, those collected by Dr. Laurence Turnbull, who has found 375 deaths reported from chloroform, and 52 from ether. I do not believe that these figures nearly represent the total mortality; I doubt very much whether one-third of the deaths from anæsthesia are reported; certainly not one-third of the cases I have had personal knowledge of have been publicly reported. Moreover, the pressure to conceal deaths from chloroform is greater than when the lethal result is due to ether. The surgeon who uses ether feels that he has employed the safest anæsthetic, and that he will receive no blame if a death occurs from it, and feels also that he has a rare case to put on record, which will give his own name a permanent place in anesthetic literature; whereas the surgeon who uses chloroform knows that if death occurs from the anesthetic, a very large proportion of the profession, at least in the United States, will condemn him, either in public or secret, for the use of this drug, and that he will be fortunate if he escape being publicly condemned by a coroner's jury. Moreover, deaths from chloroform are only too common, so that the surgeon has nothing to gain and much to lose by the publication of a chloroform death, and it possessed of the average human nature, holds his peace."

The above utterances are taken from the address of Prof. H. C. Wood at the recent Berlin Medical Congress. The American profession, at least that part of it that employs chloroform as an anesthetic, will settle in their minds whether or not the opinions enunciated by the learned teacher expresses their belief, or even expresses the facts as known, and if he is authorized to say that "the pressure to conceal deaths from chloroform is greater than when the lethal result is due to ether." How it comes to pass that the administration of chloroform by preference as an anesthetic makes that person less truthful than the one who employs ether, is something yet to be explained.

REVIEWS AND BOOK NOTICES.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS. Vol. 6, No. 1, April, 1890.

(1) THE HUMAN FOOT: Its Form, Structure, Functions and Clothing, by Thomas B. Ellis, M.R.C.S.

MODERN CREMATION: Its History and Practice, by Sir H. Thompson, F.R.C.S.

APHASIA: A Contribution to the Subject of the Dissolution of Speech from Cerebral Disease, by James Ross, M.D., LL.D.

(2) Vol. 6, No. 2, May, 1890. INSANITY AT THE PUERPERAL, CLIMACTERIC AND LACTATIONAL PERIODS, by W. Bevan Lewis, M.R.C.P.

TREATMENT OF DISEASES OF WOMEN BY MASSAGE, by Robert Tingenspeck.

TREATMENT of Internal Derangements of the Knee Joint by Operation, by Herbert W. Allingham, F.R.C.S.

THE IDIOPATHIC Enlargement of the Heart, by Dr. Oscar Fraentzel.

(3) Vol. 6, No. 3, June, 1890. BRONCHIAL ASTHMA: Its Causes, Pathology and Treatment, by John C. Thorowgood, M.D., F.R.C.P.

CONVULSIVE SEIZURES, by J. Hughlings Jackson, M.D., F.R.C.P.

SURGICAL Treatment of Diseases of the Brain, by Ernst von Bergman.

(4) Vol. 7, July, 1890. STRICTURE of the Rectum, by Charles B. Kelsey, M.D.

INFLUENCE of Heredity on Alcoholism, by Dr. Paul Zollier.

RABIES, by Louis Pasteur.

COLOTOMY, by Thomas Bryant, F.R.C.S.

MASSAGE OF THE ABDOMEN, by Dr. Rubens Herschberg.

Several numbers of the choice monographs have been on our library table for many weeks awaiting the opportunity to notice them. It is almost sufficient in itself to transcribe the titles of these monographs to indicate to our readers their value. With one exception they are by English, German and French authors, that exception being the monograph by Dr. Charles B. Kelsey. In all these series an excellent standard has been maintained, and the typography and illustrations have been of the best. Doctors who are building libraries of reference cannot afford to let these works slip by them, and young men who have yet their way to plod and keep abreast of the best of current scientific literature would do well to invest ten dollars a year.

Annual of the Universal Medical Sciences: A Yearly Report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Charles E. Sajous, M.D., and Seventy Assôciate Editors, Assisted by over Two Hundred Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps; 1890. F. A. Davis, Publisher, Philadelphia. Five Volumes.

One would think by looking at these splendid volumes that the medical world is a very small space, so quickly are the thoughts of men brought from the antipodes and placed side by side, and so wonderfully do the different thinkers of all the nations concentrate upon the subject they are pursuing, and so many times do they allign themselves in matters which have of necessity shades of difference, that one feels that the *Universal Medical Sciences* is a singularly appropriate expression.

Notwithstanding all this, though, we do not come to the immensity of this work until we consider how many brains are directed by one brain to bring together the crystals that proceeded from a multitude, as they lie scattered in the 1250 medical magazines and books produced in one year, and sent in exchange to "the Annual."

. The editor-in-chief tells us that he, as well as his collaborators, were sick with epidemic influenza, and that some of the work was produced while the authors were still confined to their bed, showing how great the difficulties were which beset the production of the volumes, and giving a short but instructive glance as to the universality of the great pandemic, which is itself a part of its history; but this short notice is all we can find in the volumes on the subject, and it is only mentioned by one item in the general index. It must be remembered, though, that influenza made its appearance in appearance in November–December, 1889, and that "the Annual" represents the record of that year.

In looking through the therapeutic record we are impressed with the rapid confidence which the anilides in general received, and that already we have to mark on the margin of this new book, especially opposite the remark that methylacetanilid—exalgine—is safest next to antipyrin, that the rash use of antipyrin on the Continent of Europe in the influenza epidemic brought out some aspects of the drug not quite so favorable, and that exalgine numbers its accidents by the score—in fact, has had the shortest life of any of them.

We see at every turn matters of interest that we would like to quote to show to our readers how alert are all the contributors in catching and crystallizing everything that promises to be a fixed fact.

The arrangement of the matter for easy reference, the beauty of the press-work, the amplitude of the indexes, the clearness of the illustrations, the thorough editorial unification of the contributions of different writers, are some of the features which have given "Sajous Annual" such widespread recognition, and doubtless the student-doctors who habitually consult the volumes find other merits not included above. Now we say to all doctors, old and young, don't be so economical as not to include this great work in the necessary expenses of the year.

A Treatise on Headache and Neuralgia, including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. Leonard Corning, M.A., M.D. With an Appendix, Eye Strain, a Cause of Headache, by David Webster, M.D. Illustrated. Second Edition. New York: E. B. Treat, 5 Cooper Union, 1890. Price $2.75.

We have here one of the most satisfactory of the books on Headache at present before the public. A second edition has been early called for, and it has been enhanced in value by the addition of the contribution of an article on "Eye Strain in Neuralgia," by Dr. Webster, whose reputation as a specialist is widely recognized.

Dr. Corning's ingenious plan for the prolongation of the action of local anesthetics, confining the intensity of their action to certain areas by simple devices is a useful and original contribution to minor surgery, for which he has been accorded due credit.

Transactions of the Southern Surgical and Gynecological Association. Vol. II. Second Session, Held at Nashville, Tenn., November 12th, 13th and 14th, 1889. Published by the Association, 1890.

We acknowledge the courtesy of the Secretary of the Association, Dr. W. E. B. Davis, of Birmingham, Ala., for the handsome volume before us. The objects of the Society and the calibre of the talents of its members is more substantially set forth than by declarations in prospectuses. We are greatly interested in the quality of the contributions. The first contribution, by Dr. Hunter McGuire, of Richmond, we published in full in the Journal in May, and doubtless it was appreciated.

The other papers cover a large scope of surgical subjects, among which may be mentioned: "Direct Herniotomy," by Dr. W. O. Roberts; "Improved Cæsarian Section," by Dr. W. D. Haggard; "Menstruation and the Removal of Both Ovaries," by Dr. G. J. Engelmann; "Intestinal Anastomosis," by Dr. J. D. S. Davis, and another on "Intestinal Anastomotic Operations with Segmented Rubber Rings, with some Practical Suggestions as to their Use in other Surgical Procedures," by Dr. A. N. L. Brokaw, St. Louis; "Open Treatment of the Abdominal Cavity," by B. E. Hadra, M.D.; "Twenty Consecutive Cases of Abdominal Section," by L. S. McMurty; "Complications Occurring in the Clinical History of Ovarian Cysts," by Dr. Richard Douglas, Nashville; "Gunshot Fractures of the Femur," by Dr. John Brownrigg; "The Treatment of Chronic Cystitis in Women," by Dr. Hunter McGuire; "Ligation of the Subclavian Artery for the Cure of Subclavian Aneurysm," by Dr. F. T. Meriwether, Asheville; "Laparotomy in Intestinal Obstruction," by Dr. Cornelius Kollock; "Organic Urethral Stricture," by Dr. F. W. McRae and many others. We do not recognize many contributions from surgeons in the smaller towns and country places, although we know of many very good operators who might have added much to the record here made, and it is about time these gentlemen were uniting themselves with this Association and in helping to complete the record of surgical experience in the South.

Transactions of the Medical Society of the State of New York for the Year 1890. Published by the Society, 1890.

This is a stout, well-printed volume of 490 pages, for which we are indebted to the courtesy of Dr. Frederic C. Curtis, of Albany. The contributions, though not numerous, are varied. The address of the President, Dr. Daniel Lewis, among other very good things, calls the attention of the New York profession to the need for a State Examining Board upon the ground of the large number of foreigners who come to that State attracted by the commercial supremacy of New York, stating that there are upwards of 240 practitioners in the city who are graduates of foreign medical colleges, and that no existing authority is capable of judging of the validity of their credentials. We are pleased to see that our New York friends are moving in this direction, and to know that some good legislation has been accomplished, for it will have a most excellent influence on all the country.

The papers are characterized by their practical nature, and we notice that the same subjects which are uppermost in the thoughts of the surgeons at the Southern end of the Union are exercising our New York brethren, they, however, having the decided advantage which accrues from the density of population.

COLOROMETRIC METHOD FOR TESTING THE MORPHINE STRENGTH OF LAUDANUM AND OTHER PREPARATIONS.—Mr. S. J. Hinsdale, of Fayetteville, gave an account of a very delicate color test for morphine at the meeting of the North Carolina Pharmaceutical Association. He claims that if one drop of water containing 0.000001 gram (about 1 gr. to a quart) of morphine is mixed on a white slab with one drop of the ferridcyanide of potassium solution, a blue color will be developed within one minute. Standard laudanum is taken and diluted with given quantities of dilute alcohol, and marked in separate vials with the known strength. Ferridcyanide of potassium solution, made by dissolving 0.04 gram potassic ferrideyamide in 500 c. c. water, and add to it 15 drops of liquor ferri chloridi, is the reagent, which must be prepared freshly and with water containing no iron. To make the test four clean wine-glasses of 50 c. c. capacity should be placed on a white surface. Drop a very small drop of the dilutions, equal to $\frac{1}{4}$ gr., from a pipette into the glasses. Now add to each glass about 5 c. c. ferridcyanide mixture, and in about a minute add 15 to 20 c. c. water, and observe the shades of color. This observation must be made within five minutes, as the air and light will soon cause all to be uniformly blue. "By comparison of these shades of color produced by the standard solutions, you can easily estimate the strength of any sample of laudanum with much accuracy."

THE ROSTER OF THE MEDICAL OFFICERS OF NORTH CAROLINA DURING THE LATE WAR.

We have prepared copies of the Roster of North Carolina Surgeons who served in the late war, for the purpose of getting it revised. Our plan is to send them from one to another of the medical officers known to be living, asking them to look over the list and make all the corrections they see necessary.

1. As to the correct spelling of name.
2. Rank and date of commission and date of retiring from service.
3. Arm of service engaged.
4. Campaigns in which he served.
5. Record of capture, wounds or accidents.
6. If the friend or acquaintance of any in the list be dead, please state the fact and the date of death if it can be obtained.
7. If there was any biographical record of the services of such deceased friend, and ESPECIALLY IF A PHOTOGRAPH IS OBTAINABLE.

Such other items of interest as may occur to those who receive the circular, we trust they will kindly furnish, sending the reply on the printed postal sheet, and forwarding the list to their next neighbor, with the request to forward to his, and so on.

The design of this enquiry is to secure this record on behalf of the Committee appointed by the Medical Society of North Carolina to rescue Confederate records from oblivion, and when the records are all in to print them, together with as many photographs as can be obtained.

PALPITATION OF THE HEART.—Dr. Nebo (in *Journal de la Sante*) says that an excessive palpitation of the heart can always be arrested by bending double, with the head downward and the hands pendent, so as to produce a temporary congestion of the upper part of the body. In almost all cases of nervous or anemic palpitation, the heart immediately resumes its natural function. If the respiratory movements be suspended during this action, the effect is only the more rapid.—*Scientific American.*

[We saw a demonstration of this feat by an intelligent friend who was subject to wildly irregular heart, but have never seen it in print before.—EDS.]

CURRENT NOTES.

ATROPINE AS AN ANTIDOTE TO CYANIDE OF POTASSIUM.—A clerk in a business at Halle (Germany), who had made a pleasure trip to Leipzig with the money of his employers, on his return resolved to commit suicide to avoid exposure. He succeeded in procuring a quantity of cyanide of potassium solution, and also of atropine solution, which he swallowed in rapid succession. Beyond a few passing fainting fits, however, he was none the worse for his suicidal attempt, and after a few days' hospital treatment the would-be suicide had completely recovered his health, no antidote whatever being administered to him. It is thought that the atropine solution acted as an antidote to the cyanide.—*Chemist and Druggist.*

MICROSCOPICAL EXAMINATION OF URINE.—To facilitate the microscopical examination of urine, the *Lancet* says: "When attempting to examine urine under the microssope, for casts, epithelial cells, and other organic bodies, a good deal of annoyance and difficulty is sometimes caused by urates, and also when the specimen is not quite fresh, by fermentation and putrefactive products. In order to obviate this difficulty, and with the further view of preserving the specimen, Dr. Wendringer advises that the urine should be mixed with a nearly saturated solution of borax and boracic acid. This dissolves the urates, and keeps the urine from fermenting, and at the same time exercises no destructive effects upon the casts and epithelial elements which it is desired to examine. The solution is prepared by mixing twelve parts of powdered borax in one hundred parts of hot water, and then adding a similar quantity of boracic acid, stirring the mixture well. It is filtered while hot. On long standing, a small deposit crystallizes out, but clings to the side of the vessel, so that it does not interfere with the transparency of the liquid. The urine to be examined is put into a conical glass, and from a fifth to a third of its bulk of the boracic solution added to and agitated with it. The urine will be found to have become clear in a short time, i. e., if there is no cloudiness due to bacteria; and it will remain unchanged for several days. If it is only wanted to clear the urine and to make it keep for a day or two, the addition of a smaller of the boracic solution is sufficient. If a third of its bulk is added, no fermentation or putrefactive processes take place, even if the glass is left uncovered in warm places. Albumen, too, if it exists, is not coagulated. The organic elements, such as epithelial cells, casts, blood corpuscles, etc., collect so quickly without undergoing morphological change, at the bottom of the glass, that the first drop taken up by the pipette usually proves a satisfactory specimen.—*Indiana Medical Journal.*

DIABETIC DIET.—Professor Naunyn, of Strassburg, gives the following rules for the diet of a diabetic person. These rules will be of much practical benefit to those who cannot always consult their physician : A. *Food.—Meat* of every kind and form prepared without starch or sugar. Also sweetbreads and calves' brains. Daily meat ration, 1 to 1½ pounds, weighed cooked. In place of meat, eggs may be used as desired. One egg is equivalent to about 2 ounces of meat; the yolk of the egg contains even more nitrogen than meat. Fat may be used in every form. Bread, if at all permitted, may be used to the extent of 1 to 3 ounces per day. Vegetables and fruits are valuable for the organism, since they supply the salts of the alkalies and alkaline earths; but the carbohydrates contained therein render their use advisable only in cases where it is found that they are comparatively harmless. The dextrogyre carbohydrates, viz: glucose, starch and dextrin, are badly digested by diabetics; but the lavogyres, viz: levulose, inulin (the starch of the Compositæ), inosite and mannite, are easily and almost completely digested without increasing the sugar. Hence, while the former are dangerous, the latter are harmless. Among vegetables the following are to be recommended: Jerusalem artichoke (Topinambour, from *Helianthus tuberosus*), Chinese or Japanese stachys-tubers (contain much inulin), chicory root, dandelion root, common artichokes, green peas, mushrooms (contain mannite), apples and pears (contain levulose). B. *Drink.—Milk*, particularly sour milk [buttermilk], kefir, or kumyss, 1 to 1¼ pints, may be used daily, if it is found that the ingestion of milk-sugar is without influence upon the excretion of glucose. (In some patients this is the case, in others not.) Light wines, claret, brandy or whiskey [schnapps] with water are permitted; of the heavier wines, dry sherry. Beers are dangerous. Bitter liquors are permitted; but sweet ones must be avoided. Cocoa is forbidden; but tea or coffee (without sugar) is allowed.—*Med. Chir. Rundschau.*

Women Doctors.—Women who practice medicine suffer from inconveniences at times, as, for instance, a man rang the door-bell of a female physician at night, crying: "Quick! Tell the doctor to hurry, as my wife is about to be confined!" Then the husband of the female physician, who had opened the door, responded: "It is impossible for the doctor to go at this moment—she is about to be confined herself!"

READING NOTICES.

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NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., }
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NORTH CAROLINA

MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } **Editors.**

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ORIGINAL COMMUNICATIONS.

OXYTOCICS.

By V. A. Whitley, M.D., Norwood, N. C.

My only excuse for writing on this hackneyed subject is that I had considerable trouble on this line during the first years of my practice. Some of the older physicians of my acquaintance used oxytocics very freely, and I could almost say, at times, indiscriminately. The text-books lay down certain rules to guide the obstetrician, and as a beginner I tried to adhere to these rules as near as circumstances would admit, and by so doing I too often found myself in uncomfortable positions. I then began a close and critical study of labor, and especially uterine inertia, and that class of remedies called oxytocics. My observation and experience in a pretty extensive obstetrical practice, in many particulars, differ from most or all the authors I have studied; hence this essay, hoping to be of some benefit to the younger members and perhaps bring out a discussion among the older ones, by which much apparent obscurity may be cleared up.

I do not propose in this essay to set myself in opposition to the medical world, but only to give my experience and views in regard to this class of so-called remedies.

An oxytocic is any remedy that will facilitate labor, one that, when the uterus is in a state of inertia after labor has begun, will bring on pains and terminate delivery. By most writers all agents that cause contractions of the womb, whether they be regular or irregular, are included in this class. In discussing this subject I exclude all external agents, and treat only of internal remedies. There are a number of drugs that are supposed to exert some contractile power on the gravid uterus, such as borax, cinnamon, strychnia, quinine, ergot, warm drinks, whiskey and others; but chief among them is ergot; it is the one generally used, and receives most attention because it is the leading drug of this kind and is taken as a type.

Its use as an oxytocic dates back to a remote period, probably before the fifteenth century. In Germany it was a popular remedy with midwives, as its vulgar name (mutherkorn) attests. Its earliest uses in labor, in every country in which it has been used, was very probably confined to midwives. Stille says that a Dutch accoucheur used, in 1749, a medicine that would greatly hasten labor, and that this medicine was ergot. He says: "I make use of a medicine the second dose of which never fails to bring on labor pains and convert false into true ones, so that the expulsive efforts become more efficient, and the dilatation of the os uteri advances, often when nothing was lacking to bring a labor to a favorable termination, this medicine has proved effectual without any instrumental assistance." It was, according to some authors, used from time immemorial in France and Italy. Its use was interdicted in France in 1774; so in Europe its reception and fate was like that of most new remedies, now in, and then out of favor. Its first use in America was by women to produce abortion. The first official notice was in 1807 by Dr. Stearns, of New York; it was then used by a number of noted doctors. About 1813 arose the first suspicion of danger to the life of the fœtus, by the too great and constant compression. Its use and efficiency was sustained by such men as Chapman, Dewees and Atler. There have been some who questioned its virtue, but the masses have remained unshaken in their good opinion of it.

That ergot causes contractions of the womb is admitted by all. When there is uterine inertia, ergot, given in full doses, will produce pains, but they differ from the natural expulsive effort. The natural contractile effort at expulsion is a very peculiar action of the uterine muscles. The effort is in the whole body, with a contractile force from behind, which presses the fœtus downward and at the same time produces dilatation of the os. There is also an expulsive assistance of the abdominal muscles.

The contractions are intermittent, giving time to rest and restore the tone of the muscles and to allow the circulation time to be resumed, so as to cause least damage to mother and child. Not so with the contractions produced by ergot (or any other oxytocic): they are tonic, there is no expulsive effort, no tendency to terminate labor, but a steady compression of the uterine walls, the os included, upon the fœtus in utero.

It is painful, exhausting and dangerous to mother and child. Stille admits that there is danger to the child from too long and continuous interference with the utero-placental contraction from pressure produced by ergot. Dr. Hasock says: "Ergot has been called in some of the books, from its effect in hastening labor, the *pulvis ad partum:* as it regards the child it may, with almost equal truth, be denominated the *pulvis ad mortem*, for I believe its operation when sufficient to expel the child, in cases where nature is alone unequal to the task, is to produce so violent a contraction of the womb, and consequent convolution and compression of the uterine vessels, as very much to impede, if not totally to interrupt, the circulation between the mother and child." Some authors claim to have successfully refuted the above statement. It may have satisfied the demands of the times, but later investigations have clearly substantiated the truth of the assertion, and, I will add, demonstrated the fact that no oxytocic remedy should ever be administered before the second stage of labor is nearing completion; and then should be given only to cause firm contraction in a uterus that has shown a tendency to contract very slowly in past labors. I think I may safely say, further, that, in the sense we usually use it, there is no such thing as an oxytocic. An oxytocic, in the common acceptation, is a medicine which, when introduced into the system, will produce pains or contractions of the uterine muscles and facilitate natural labor, or originate contractions and terminate labor in cases of uterine inertia. I deny the existence of such a remedy. There are drugs, as ergot, etc., that will increase pains, but do not increase the expulsive effort, nay, they retard it by destroying that natural yet peculiar force of uterine contractions, which has been truthfully termed the *vis a tergo*. Instead of being a force from behind, it is a force bearing equally in all directions, doing nothing but hugging the fœtus in the powerful grasp of the uterine muscles. This is unnatural, not nature's mode of applying the *vis a tergo*.

The contractions are highly dangerous to mother and child—to the mother by causing uterine rupture, impeding the circulation in the parts, thereby bringing about an abnormal condition; to the child by cutting off utero-placental circulation and by the violent and constant compression, especially after the membranes are ruptured and the waters escaped, and to both by delaying labor. This assertion about delaying labor may appear strange, yet it is true. The abnormal contractions and compression are in all directions, hugging the child as if in a vise, prevents expulsion and is followed by a state of exhaustion, and thereby causes delay and retards delivery. Everyone who has ever used ergot to any extent has witnessed cases where its administration caused violent contractions, and in many instances causing the patient to cry out with physical pain, but which, upon examination, produced no visible advancement in the passage of the head through the bony or soft parts. In some instances I have seen the head actually recede to some extent. I have given these (so-called remedies) pretty extensively in order to watch their effects and further the investigation in the interest of the profession.

Most of us have been called to cases that were very tedious, lasting possibly several days, very trying to patient and physician. In such cases I have given ergot in the vain hope of hastening the termination of labor, but have always been disappointed, the non-expulsive, violent efforts being followed by an exhausted calm. In one such case I had been detained for about forty hours, the os dilated, the head not low enough for forceps, the pains all gone, and, other patients needing me, I gave ergot in full doses, which produced powerful and painful contractions, followed by complete exhaustion; in the course of a few hours the natural forces rallied, and, after a protracted effort, the child was delivered dead. We may draw the conclusion that in this case labor was unduly protracted and the life of the child sacrificed by ergot. I dare say the above example illustrates the experience of many. Another case I remember that had been protracted several days, labor was progressing slowly but surely, os dilated, head not quite low enough for instruments, and, in my great anxiety to terminate the case, I gave ergot with usual results—severe pains followed by a calm. I then gave more ergot, quinine and all the remedies supposed to exert any influence over the gravid womb, but without any perceptible benefit; labor was completed, after twenty-four hours of rest, without any further trouble. The first case I ever had illustrates the work of the beginner. I was sent for to go and get a midwife out of trouble. My father, an old and respected physician, and another younger one who was present, told me if the womb was dilated to the extent of an inch to give ergot till something was done. When I reached patient found mulatto girl, aged 18, primipara; had been in labor thirty-six hours, os dilated, head down low enough for forceps; she was full of ergot and suffering excruciating pains. I ought to have delivered with forceps, but had no instruments with me and had never used any. I proceeded to give more ergot and wait, and I waited till nearly night, and then sent for my father. He said probably my ergot was not good, and gave some that was fresh, with usual results. After a few hours the child was born dead; can't say whether ergot caused its death or not, but think it was dead when I arrived. The child being dead may have caused labor to be more tedious (as I believe it will), but I can't help thinking that we all acted unwisely, and made the confinement more tedious, difficult and dangerous by the administration of ergot. I could enumerate numerous cases similar to the above, less the fatal results to child; while they are extreme cases they show what may be expected from the presence of ergot in full doses. We are all familiar with the disastrous results of meddlesome midwifery. All have had many cases of women who come for chronic womb diseases, who date the beginning of their troubles to a tardy labor at which a midwife officiated. Who knows exactly what it was about that individual labor that caused a laceration of the cervix, an injury to the body of the uterus, or the special trouble that the patient is suffering with? All the midwives in my section are acquainted with its supposed action, and use it in nearly every labor. It is now used, and has been, as its history shows, from time immemorial, by women in obstetrical work, and in many instances for criminal purposes. A favorite use with all is to control hemorrhage during and after abortion. Doubtless all have seen cases of abortion in which ergot was used, after expulsion of embryo, to control the flooding, and then the physician either has to wait for the os to relax before removing the adherent secundines, either with finger or curette, or else leave the case to nature: the latter practice, although advocated by certain authors, I think is unjustifiable, at least it must be a rare case in which it is allowable. Its use is extensive, both in the hands of midwives and physicians. Many physicions use it rather recklessly, through lack of proper knowledge as to its actions. Who can estimate the disease and suffering thus enforced upon the unfortunate mothers?

Often when there seems to be a want of tonicity to the contractions, inertia is setting in, and we think that a stimulant or something is necessary to increase the pains, it comes from exhaustion and needs only rest to enable nature to do its work well. All have witnessed the good results from a judicious administration of chloral or an opiate in the first stages of labor, and even in the more advanced stages it very often does good. They not only diminish the acuteness of the pains and permit dilatation to go on more quickly, but seems to save up the natural forces and cause the patient to go into the second stage more cheerfully, and with more energy and confidence. It is in this way that these agents act; they assist nature, not by increasing the actual suffering or the contractions, but act as conservators and enable nature to expend the reserved forces to more advantage. Last year I was called to see a case with a midwife, an old octoroon; found mulatto girl, aged 19, rather delicate, had been in labor two or three days, full of ergot, pains severe, but not bearing down, os rigid, patient nearly exhausted, all were excited, old lady had given up hope: I administered morphine and atropine hypodermically; child was delivered in thirty minutes.

In the above case we may infer that the opiate acted as a sedative, relaxed the vise like grip and allowed the natural forces to do what would have been done long before had there been no interference. As opiates and anodynes help to tide the patient through the first stages, so do anæsthetics, judiciously given, in the second stage. In many instances they are imperative, not as some use them, to complete anæsthesia, but partial, till the very moment of delivery, when it should be pushed to complete insensibility. All cases do not require an anæsthetic. I have digressed only to show that, while not classed as oxytocics, opiates, anodynes and anæsthetics, come nearer being genuine oxytocics than the so-called remedies, because they do facilitate labor, when properly administered.

Ergot may have, and probably has, the power to produce abortion; this I attribute, not to its direct effect, oxytocic virtues, but to its indirect action—interference with the utero-placental circulation. In cases of tardy labor a close observance of hygienic rules often does good; unload the lower bowel by an enema; look after condition of bladder. Compression of abdomen, walking and certain positions may assist the natural effort. I attended a lady, aged 36, primipara, where there was but little pain or contraction till the last half hour before birth of child; the only means used was compression; the child was almost literally pressed out; she never had an untoward symptom.

In my practice I have succeeded much better in every respect, for the last few years without using much ergot, than before with its free use. My observation and experience teach me that it is useless and dangerous to give ergot before the os is completely dilated and the head low enough for forceps, and that being the case, instrumental delivery is quicker, safer and more scientific. Ergot should never be given till delivery is possible with instruments, and then only as a means of promoting uterine contractions to prevent postpartum hemorrhage. Its benefits are then doubtful, and possibly fraught with danger to be followed by puerperal septicemia, and also that involution is retarded. From its known action on the pathological conditions of the womb we would naturally be led to believe this to be true. The uterus during and just after delivery is in an engorged and abnormal condition; the arterioles are opened by the removal of the placenta, there is a natural drain established by which this engorged or hyperemic condition may be relieved and the parts put at rest; but by the presence of ergot the vessels are closed, the hyperemic state increased, the abnormal blood and secretions are dammed up, involution retarded and septicemia promoted. There are some cases of post-partum hemorrhage where ergot is a necessity, though there be danger connected with it; of the two evils we must choose the lesser.

To recapitulate—I do not believe in the existence of an internal oxytocic, as usually defined, and if there is, it is unsafe, as well as useless, to administer it till the head is low enough for instrumental delivery, and then forceps would be much more safe, quick and scientific; and that it is dangerous to the life of parent and child; and that its presence in the puerperal state is always attended with danger to the mother, and in most cases of post-partum hemorrhage, external compression, internal irritation, or the presence of warm water in the womb would serve a better purpose and be harmless; and that the presence of ergot is always a source of danger to the gravid uterus before and after delivery.

Authors Referred to or Consulted.—"Woman's Friend"; "American System of Obstetrics"; "Playfair's System of Midwifery"; "Leishman's System of Midwifery"; "United States Dispensatory"; "Bartholow's Materia Medica and Therapeutics"; "Stille's Therapeutics and Materia Medica."

THE RECOMPENSE OF RETALIATION.—One day Hahnemann, the patron saint of homœopathy, received a visit from a sick English lord. Without examining the patient or hearing any explanation, Hahnemann pulled out a small vial and passed it under the astonished Englishman's nose. "Inhale that," said he, "and you will be cured." The Englishman rose and said, stiffly: "How much do I owe you, sir?" and Hahnemann responded: "One thousand francs, sir." The Briton calmly drew a note from his purse, and, passing it under the doctor's nose, said: "There, inhale that. Now you are paid!"—and walked out in unruffled dignity, leaving the great impostor to his own meditations.

FIBROID TUMORS OF THE UTERUS.

W. P. Whittington, M.D., Asheville, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

In presenting this subject to the Society I do so fully aware of the fact that there is to-day a great revolution taking place in the medical world in reference to the pathology, etiology, but more especially the treatment, of uterine fibroids. It is doubtless true that, aside from the catarrhal and other deeper inflammations of the mucous membrane and surrounding tissues, fibroid tumors are by far the most common cause of suffering arising from the uterus.

It is estimated by good authority (Bayle and others) that at least 20 per cent. of all women dying beyond 50 years are affected with uterine fibroids. Some authors give a larger per cent., some a smaller. Recognizing that at least a large number of women who live to be 35 years of age are affected with fibroids, I must conclude that, as a whole, they are not altogether as dangerous as some of the more serious conditions arising from their presence in the uterus indicate. Yet, remembering that distressing and dangerous conditions do arise, I am impressed with the importance of every practitioner (whether a practical gynæcologist or not) making himself familiar with all these conditions as well as the means of getting rid of the cause, or at least preventing the serious effects arising therefrom, by the most certain and least dangerous means.

In considering the pathology and etiology of fibromata, we find ourselves lost in a mist of uncertainty and difference of opinion. Some writers will tell you that the cause is totally unknown, and that the pathology depends on a peculiar development of a changed uterine tissue with proliferation of cells in such a manner as to produce an independent growth. The most reasonable theory (to my mind) is that advanced by Rosa Engart, which she substantiates by referring to some of the late researches by Welch. Her theory is that a fibroid is nothing more nor less than an organized giant thrombus. Wherever hæmatoma happens to form nature will try to bring life into the extravasated blood coagula by organization.

Welch states that in a thrombus of five minutes existence blood-corpuscles were found, but in a state of degeneration. Leucocytes were only sparingly visible. Half an hour later they had increased considerably in number. Fibrine appeared in from five to thirty minutes in the form of strips and islets between the blood-corpuscles and on the surface of the blood coagula. Gradually it formed a network, and twenty-four hours from the beginning of the process a great part of the thrombus consisted of fibrin.

Henking holds that the first process in the organization of a thrombus is the conversion of the blood into a fine granular mass which becomes striated. Canalization takes place from the line of demarcation from the border of the vessel-wall; proliferation of the endothelium begins and gradually covers the part of the thrombus which does not adhere to the surrounding wall. Underneath this cover a layer of connective tissue develops; the endothelium begins to grow into the thrombus and capillaries are formed. Another set of capillaries develop from the vasa vasorum of the vessel in that particular thrombus which adheres to the vessel-wall. Gradually the connective tissue increases while the thrombus decreases.

The structure of fibroids varies very greatly according to their original development and their state of health or disease. They are composed mostly of connective tissue, but there is always a certain amount of muscular fibres developed in their formation. There are also two distinct classes of myoma or fibroid. One is a soft, smooth, rapidly growing myoma and may occur at any age and require operation in early life, while the other is a multinodular, firmer growth, and rarely, if ever, calls for removal before the thirtieth year. Removal of the appendages will usually stop the growth and reduce the size of the multinodular, while it will have no effect on the other. Hence we see the importance of a correct diagnosis, which is not at all times possible, and accounts for many of the failures of treatment and the consequent condemnation, either of the method used, or its application. To the œdema inflammation, fatty colloid and calcareous degeneration I will only refer as some of the diseased conditions to which fibroids are liable, and as having nothing to do with their true pathology. The most common site of fibroids is in the body or fundus, but they may develop in the cervix. They are either sub-mucous, interstitial or sub-peritoneal according to their situation in the uterine wall. Of these the sub-mucous is probably the most fruitful of hemorrhage, while the sub-peritoneal is more apt to involve the appendages and produce neuralgic and other symptoms due to pressure upon the pelvic and abdominal viscera. Pain and other distressing symptoms may be caused by degeneration, sepsis and other complications, and must not be attributed merely to the displacements usually found accompanying uterine fibroids.

Those tumors which produce the most serious and annoying symptoms are of rapid growth, or involve the endometrium or appendages. Very small tumors may delay the menopause, but are not beyond this of much importance in women at this period of life. Pain and failing health taking place about this time of life, is an indication of degeneration and may call for hysterectomy.

I will not occupy your time further to discuss the causes, complications, symptoms and differentiation, but will proceed to the medical, electrical and surgical treatment. By medical treatment we may expect to relieve the pain, reduce the hemorrhage, and reduce a sub-mucous tumor into one of a polypoid nature, and thus favor surgical interference. This is no doubt best effected by the careful and continued use of ergot in one form or another. We may also hope, by the use of the same drug, to so contract the tumor and surrounding tissues as to reduce or destroy the nutrition, and thus retard, or entirely stop, the growth of the tumor. Besides ergot, such remedies as favor absorption, as the iodides and bromide of potassium; preparations of arsenic and phosphorus, are recommended; but it is not known that they will certainly produce absorption of these tumors.

Dr. Bedford Brown speaks very highly of the calcic phosphites, claiming that they favor the absorption of tissues of low vitality by building up and correcting the tone and vitality of the normal tissues. Such remedies must necessarily require a considerable length of time, and are therefore applicable to such cases as do not require immediate active treatment.

The use of electricity in the treatment of uterine fibroids has been attracting considerable attention for the last few years, and will no doubt be the means of at least putting a check to the enthusiastic use of the knife by many gynæcologists of the present day. Don't understand me to wholly condemn surgical interference, but I am convinced that many lives have been lost in the last few years by the interference of skilled and unskilled operators, when, by the proper use of electricity or other milder means, they might have been relieved of all the distressing symptoms and enabled to live many years in comparative comfort.

Among the authors who have advocated the treatment of uterine fibroids by electricity during the last year are Bradford, Black, Bigelowe, Ashby, Aveling, A. B. Carpenter, Clement, Davis, Delassus, Durante, Engleman, W. Fischel, Goelet, Keith, E. L. Overman, W. S. Playfair, Lathorn Smith, and many others of equal popularity and ability. On the other hand, we find Chadwick, Tate, Waley and a few others who condemn the method, acknowledging that they have not given it a thorough trial.

That many surgeons have been disappointed with their results from the use of electricity, I think is due to too much enthusiasm and too great expectation as well as an improper selection of the cases and a want of a patient, persistent and proper application of the remedy.

No tumor in which there is suspicion of cystic degeneration should be treated by electricity. Galvano-puncture should never be used when it is possible to reach the tumor through the uterine canal. When this is not possible, puncture should be made through the cervix or vaginal wall, carefully avoiding the bladder and large blood-vessels.

The current must be localized and confined as closely as possible to the tumor. In all cases the dose should be accurately observed. One pole must serve as the active agent for the application of the current, and upon this its entire effect is concentrated. The current at the opposite pole is to be disbursed over as large an area as possible, so that its effects will be least perceptible. The poles should be placed on opposite sides of the tumor and as near to it as possible, the indifferent pole being placed on the largest and least sensitive surface. The current should be of sufficient strength to accomplish the object desired in the shortest possible time without detriment to the patient. There is considerable difference of opinion as to what this strength is. In Dr. Chadwick's very unfavorable cases the strength of dose ranged from 45 to 175 milliampéres. Much larger doses have been used by others with no bad, but the very best effects. The dose should always be governed by the character of the individual case, and the effect produced as the dose is gradually increased. There is often a temporary aggravation of the symptoms at the commencement of treatment, owing to the congestion which arises in the tumor and surrounding tissues. This, however, soon subsides, and gradual improvement will take place if the case is properly selected and the treatment correctly applied. From what appears from the reports of the best results we cannot expect much good from a current of less strength than 80 milliampéres, and that it is rarely advisable to use over 250. Another very important requisite in the use of electricity is to have a battery of sufficient strength, and that will produce a smooth-flowing, constant current. An instrument with 50 or 60 improved Law or Leclanche cells will answer all purposes. With this we need a rheostat for the purpose of controlling the current strength, and an ampéremeter for measuring the amount used. The abdominal electrode should be large and flexible so as to adapt itself accurately to the surface of the abdomen. It may be composed of clay, lead or tin, covered with clay, gause, canton flannel or buck-skin held in place by a quilted sand-bag. The internal electrode may be made of carbon or some metal plated with gold or platinum. For electro-puncture is required a strong steel needle insulated to within half an inch of its point. With proper care and skill no anæsthetic is necessary except for very nervous or hyperæsthetic patients, and in electro-puncture. The patient having removed the corset and loosened the clothing around the waist, should assume the dorsal position. All scratches, pimples or excrescences of the skin should be covered with bits of court-plaster or oiled silk, to render them less sensitive to the current. The abdominal electrode having been soaked in warm water, should now be applied so as to come in contact with the abdomen throughout its entire surface. The epidermal layers of the skin being moist, the current passes with less resistance and consequently with less pain. Warm dry cloths should be placed over and around the electrode to protect the clothing and other parts of the body from undue moisture. (Throughout the entire procedure the greatest antiseptic precautions should be used.) The internal electrode should be carefully introduced. The rheostat being at the greatest point of resistance the connections are made and the current turned on very evenly and slowly, and gradually increased from nothing to 50 or 100 milliampéres in the course of one minute. The first sitting should not be longer than six minutes. The current should not remain at its highest longer than three minutes, and should be slowly reduced to nothing. Great care should be taken to avoid anything that would suddenly increase the intensity of the current or produce oscillations of the electrode which might cause severe and painful shock. If electro-puncture is used the needle should not be introduced more than one and a half inches, and not so deep in small tumors. The after treatment should be conducted according to the effect produced. If there is pain or evidences of reaction with elevation of temperature; rest and ice-bags over the region of the tumor should be required until the bad symptoms pass off. Excessive hemorrhage should be treated with tampons of styptic cotton.

In the surgical treatment of uterine fibroids there are no very important recent developments. As I have heretofore intimated, there has no doubt been too much ethusiasm among many surgeons for operative interference with uterine fibroids. Many of them, looking upon all fibroids as requiring treatment, and being desirous of doing something reputable, have done operations when the emergencies of the case did not call for it, and relief might have been had by milder means. At least one-half the fibroids that come under the observation of the physician call for little or no treatment at all.

Only those tumors which are growing rapidly in young women and those which are rapidly depreciating the health by excessive hemorrhage—those that are in a state of degeneration, or are known to be cystic and have resisted all other treatment, should be subject to surgical treatment. Of course there are exceptions to this rule where operations of various kinds should be done without delay.

There are various methods of surgical procedure. Sub-mucous polypoid tumors may be removed by torsion, or the chair eccrasure, or ligature. Interstitial tumors of the cervix and sub-mucous tumors of the body and fundus may be removed by vaginal enucleation. In this operation, after opening the capsule with scissors or some blunt instrument, the fingers should be used to peel out the tumor, which may be grasped and held with volsella or blunt forceps, but as little traction as possible should be used.

Many interstitial fibroids of the body and fundus and all sub-peritoneal fibroids will require laparotomy. In those fibroids which for any reason do not admit of operation, the hemorrhage may be relieved by oöphorectomy.

V. Stäheli reports 16 cases where double oöphorectomy was performed for hemorrhage and other symptoms caused by the pressure of inseparable fibroids. The ages of the patients ranged from 29 to 48 years, and the duration of the symptoms from four months to nineteen years. There were two deaths and two cases where the hemorrhage recurred. The others were cured. Besides laparo-hysterectomy, in which the entire uterus, with its fibroid addition, is removed through the abdominal wall, some German gynæcologists have lately opened the abdomen, split the peritoneal capsule of the tumor, enucleated the latter and closed the wound by deep sutures. Several operators have also removed the uterus per vagiman with its fibroid growth. In laparo-hysterectomy the chief point of difference, and perhaps the most important point is, the disposition of the pedicle.

Bantoc, Lawson Tait and others are strongly in favor of the extra-peritoneal method.

Hector Trenb does the operation with as much speed and simplicity as possible, dusts the pedicle with iodoform and drops it. He has had two deaths in 17 cases. Fritsch employs a modified extra-peritoneal method which consists in the excision of the mucous membrane of the cervix, suture of the raw surface towards the vagina, suture of the stumps of the broad ligaments to the sutured surface of the serosa uteri, fixation of the stump of the uterus at the lower angle of the abdominal wound and careful closure of the latter.

Price advocates the dry extra-peritoneal method. After the clamp is applied the stump is cut off and trimmed down as far as seems compatible with safety. The stump is then drawn down into the lower angle of the incision, and its peritoneal covering above and below the wire stitched to the abdominal peritoneum, two or three stitches being all that is necessary. This shuts out all possible chance of sepsis. A dry dressing of iodoform gauze is applied. In case of large, succulent stumps he applies bichloride directly to the surface. Under this treatment the stump becomes completely mummified in a few days, according to the pressure made by the clamp, and drops off without odor or discharge. The union of the incision is scarcely delayed. It is important that the wire should be strong and pliable, but not ductile. Delta metal probably answers best.

In conclusion :

(1) I would say, don't be over anxious about fibroid tumors of the uterus, remembering that about one-half of those that come under the observation of the physician call for no active treatment at all.

(2) That correct diagnosis as to the character, situation and rapidity of development, as well as the age of the patient, are of the greatest importance in the selection of the treatment.

(3) That medical and electrical treatment should be carefully tried, where practicable, before resorting to vagino- or laparo-hysterectomy, or other serious surgical procedure.

UNCONTROLLABLE VOMITING OF PREGNANCY.—It is an erroneous idea that any one method of treatment or medicinal agent can be of service in all cases of the vomiting of pregnancy. The so-called uncontrollable vomiting may arise from various causes, and three organs or apparatuses concur in its production. These organs are the uterus, the point of departure of the troubles which involve the other organs; the nervous system, both spinal and ganglionic, which by means of its reflex power transmits to a distance the troubles which start from the uterus; and the stomach, which suffers from the action of the uterine stimulus. In order to treat this form of vomiting with a success which shall be almost uniformly good, one must resort to a complex treatment which is addressed simultaneously to the three sources of the disease. There are three fundamental indications to be satisfied. (1) The morbid or abnormal excitement of the uterus must be allayed by remedying the different pathological conditions which produce it. Various means may be used for this purpose, including the use of belladonna, cocaine, morphine, vaginal injections or appropriate topical applications, the Gariel pessary, elevation of the pelvis with inclination of the body, cauterizations and artificial dilatation of the cervix. (2) The activity of the reflex transmissions must be diminished or suppressed by the use of bromo-chloral, by chilling of the spinal region, by moral influences, etc.—*Archives of Pædiatrics.*

REPORT OF THE CHAIRMAN ON PRACTICE.

By **Leonard G. Broughton**, M.D., Reidsville, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.)

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

The report which I present to you to-day for acceptance is offered with much reluctance, for well do I know how imperfectly it is done. But I know that, the circumstances being considered, I have done the best I could, and I trust I will receive as a reward at least your attention and patience while I attempt to read it.

In reviewing the literature of the past year, I find that the medical world, true to its past record, has been alive and busy, ever keeping abreast with progress in all the lines of art and science. Yes, indeed, too much has been the progress along the line assigned the writer to be mentioned in this report. The probability is, that in the history of the medical profession, there has never been a time when the "medicine man" has been so much in demand as during the past Society year. The unusually warm winter, preceded by so wet a summer, has probably been the source from which has arisen all, or a great part, of the extra amount of sickness during this time. The epidemic of "La Grippe," which visited our country has very probably been in itself the cause of a great majority of the physical suffering of the past winter. But still, with all of our trouble in North Carolina, our mortality rate has not been so much increased, certainly by no means in proportion to the amount of distress.

Our profession, it seems, has been equal to the emergencies. I think it safe to say that increased confidence has been gained by the physician during the past year by his skill.

And now, Mr. President, after these few preliminary remarks, I ask for your consideration of the report proper.

For convenience I have divided the report into three parts, each being presided over by a gentleman who will read a paper on his respective lines. First is the department on febricular diseases, presided over by myself, and I will give a paper on "Typhoid Fever."

Second is the department on diseases of the respiratory tract, presided over by Dr. James A. Hodges, who will give a paper on "La Grippe." Third is the department on "Gastro-intestinal Troubles," presided over by Dr. —. Booth, who will give a paper on "Cholera Infantum." The papers of these gentlemen will constitute the report of the Section on Practice; and it is earnestly hoped by us that we may incite enough interest in these respective subjects (in all of which we should be interested) to awaken some discussion, that the truth, as it is wanted to be brought out in these papers, may be set forth. Taking these papers in the order in which they come, the paper on "Typhoid Fever" will come first, after which these gentlemen, who have been so kind as to assist me, will read their respective papers.

TYPHOID FEVER.

I find in looking over the literature on febrile troubles of the past year that the great majority have been on the subject of typhoid fever, and principally, too, on the line of treatment. Scarcely has a journal gone out but that there has been some mention made of typhoid fever. And while, according to my mind, there has been very little gained during the past over the year preceding, yet there has been a great interest kept up all the time, and some good has been accomplished; and in this paper I shall try to make mention only, so far as I can, of those things of most interest.

Etiology.—There has always been a great dispute as to the etiology of this trouble. It seems that the profession is willing to concede to the opinion of the men of investigation concerning most anything else, but not typhoid fever. Why this is I do not know. But I think to-day the important part played by ptomaines in the production of this trouble is not so much a question to be discussed as a fact to be accepted. The microscope has been of vast importance in settling the once mystical idea concerning the etiology of typhoid fever, and with each and every microscopical examination there is gained new victories for the influence of certain pyrogenetic agents in the production of this dreaded trouble—typhoid fever—and it does seem to me that, after these continued demonstrations by the microscopists of the power and the nature of these micro-organisms, as they are found in each case, that these older school physicians should cease their attack upon them, especially when they have absolutely nothing to offer in their stead as to the cause of this disease. One great question to every thinking practitioner is, where are these "mischief-makers," and from whence do they come? According to Wilson and his co-laborer Solis-Cohen, of Philadelphia, there are three groups of these pyogenetic agents, viz:

(1) Certain ferments which have necessarily no connection with micro-organisms.

(2. Substances that result from putrefaction or decomposition brought about in the body *per se* or in the substance taken into the body by the influence of certain bacteria which may be operating in the bowel.

(3) Certain pathogenetic micro-organisms taken into the body from the atmosphere.

I think the second classification most applicable to typhoid fever, not that I do not believe and appreciate the presence of micro-organisms in the atmosphere, but I fail to see how such an organism has to do with the production of a disease which is not directly contagious, and not believing in the contagiousness of typhoid fever, I dare not accept such a course. I believe with Drs. Waugh and Mendenhall, that the germ of typhoid fever is produced in the gastro-intestinal tract as a result of the *special* bacteria acting upon the *special* ferment or substance taken into the bowel. I say special bacteria, for Weinstig, a great German microscopist, and others, have demonstrated that at all times there are various forms of bacteria lodged in the bowel capable of producing different results when under the proper kind of influence.

It is not to be understood that typhoid fever is not transmissible from one to another by means of the dejecta, for that fact is well established, but the most frequent cause is to be understood as arising from a germ developed in the bowel.

In this connection I will say a word as to the long-accepted doctrine that children could not have typhoid fever, owing to the absence of Peyer's glands. I have never believed such a doctrine, and, according to Forchenheimer's report of the recent epidemic of typhoid fever in Cincinnati, such a doctrine is without clinical backing, for in his practice nine-tenths of the cases were children. Let me say here that I do not believe that Peyer's glands furnish the primitive soil for the development of the typhoid fever any more than any other intestinal gland or follicle. That it is not the first affected in most cases I do not doubt, but that it has in it any special magnetism to abort the typhoid germ I do not believe.

We hear a great deal, in our Southern States especially, concerning "typho-malaria." We are all familiar with these so-called fevers, also with "continued malarial fever," so-called. We see them every spring and summer. In them typhoid fever is excluded from the diagnosis because of the absence of what the old writers called *special typhoid* symptoms. I am very much inclined to the opinion of Dr. Dunn, that we have either typhoid fever or malarial fever, and that such a thing as "continued malaria" is a *misnomer*. Where is the malaria? Quinine is the sure antidote to malaria, and the temperature range is unaffected by this drug, only made higher. And there is no periodicity—a thing absolutely characteristic of malaria. There is also no malarial icteroid hues of the skin. No hepatic tenderness or splenic enlargement. My main point in making my diagnosis is on the action of quinine; if it fails after repeated trials to produce a remission, I discard malaria in any of its forms, and I am done calling these spring and summer fevers we have, and are not affected by quinine—only made worse—anything but straight out typhoid fever, and treat them accordingly.

Treatment.—As was said in the beginning of this paper, much of the literature of the past year concerning this disease has been on the line of treatment more than any other; and in discussing it I will follow the division of the *Annual of Medical Sciences*, believing it the best and simplest:

(1) The bath.

(2) The medical treatment which consists of, first, antipyretics; second, antiseptics; and third, suppuratives.

The Bath.—Much has been said during the past year on this line—different methods, claiming superior merit have been advocated by different writers and experimenters.

Leibermeister, a German writer discusses the bath treatment as follows: "The height of the temperature is one principal source from which danger arises, and hence the therapeutic problem is to reduce the temperature, and the cold bath rapidly withdrawing the temperature, is to constitute the basis of the treatment. There is, as has been said, much diversity of opinion as to the manner of using the bath. Eminent men are for and against the cold bath; for instance, Loomis, of New York, plants himself squarely against the plan of *rapidly* withdrawing the temperature by cold bath. In a paper before the New York State Medical Society, in February, 1890, Dr. Loomis discussed this treatment fully and liberally, taking the ground that "our treatment, so far as cold bath is concerned. would vary according as we regarded the danger of high temperature, himself regarding it of slight importance in a majority of cases." He looks upon the temperature as only the expression of morbific change within, and so long as the morbid action goes on, so long may we expect the temperature to rage; and if a reduction of the temperature is the only thing to be accomplished, he could not see why the other simpler means would not answer better; while on the other hand, if the beneficial effect was due to the control which the bath had over the thermo-genetic and vaso-motor centres, it should be advocated upon an entirely different basis than the one usually advanced. He had been in the habit of using for a number of years the cold coil to the bowel, and believed it would, if used in time, and properly, keep down the temperature below the regarded danger-point. But, despite the plain reasoning of Prof. Loomis, *et al*, the cold bath treatment, especially after the manner of Brandt, has many advocates in this country, and it seems has many points in its favor.

Probably among the most important or prominent advocates of this plan of treatment is Dr. Simon Baruch, of New York, who, in a well-written paper before the New York Academy of Medicine, set forth the following facts :

(1) The Brandt system of bathing for typhoid fever is not directed solely to the reduction of temperature, but also as the best means of restoring and sustaining vitality.

(2) That the plan of bathing in this country is far from the plan advocated by Brandt. In order to operate strictly the Brandt system, the bathing should be begun as early as the fifth day. The temperature of the water should range at first from 75° to 80° F., and rapidly brought down to 65° to 70° F., patient allowed to remain in the water for ten minutes. This should be separated every three hours if the temperature rises above 192° F. If constipation exists, cold enemas; if diarrhœa exists, ice-bag to the bowel, with ice-water internally and by enema.

(3) That the statistical report of the operation of the Brandt system is far more encouraging than from any other plan; for in-

stance, at the garrison at Munich the mortality rate fell from 40–23 per cent. to from 4–2 per cent. under Brandt's treatment.

There is still another school of hyoropaths who advocate the use of the cold bath, rapidly withdrawing the temperature, after which large doses of quinine are administered with the view of holding the temperature down; and under this treatment it is claimed that the mortality is far lower than under the expectant plan. But it must be credited to the cold water, and not to quinine, for it has been well demonstrated that quinine has no power to prolong the remission of typhoid fever brought about by whatever plan of treatment.

As for my own experience in the *systematic* use of cold water after the manner of Brandt, I cannot speak, because it has been so limited. The plan is totally inoperative in private practice in general. But a modified form of bathing I am much in favor of, both as an antipyreric and for its influence over the nervous system—preferably for the latter, however. I always use it when the fever is high and skin dry and the patient is nervous and reckless.

Internal Antipyretics.—There has been much written of late years concerning the internal administration of antipyretics *pro* and *con*, and while they still occupy their place in fevers, yet the profession has ceased to place that unbounded confidence in them that they once had. They are now only given in extreme or dangerous temperatures, and then in small doses, and frequently repeated until the temperature falls below the danger-point, when their administration ceases—preferably among them, according to weight of evidence, is antipyrine, while antifebrine and others have their advocates.

Antiseptics.—The antiseptic plan of testing typhoid fever has only of late occupied the attention of medical men. This plan of treatment has grown out of the germ theory concerning the disease, and I am inclined to the opinion that it is the only rational way to treat this trouble, since we pretty well all agree that it is essentially a germ disease. Now, I do not claim, by any means, that as yet we have a specific absolute for typhoid fever, but I do say that, as sure as there is any certainty in medicine, *there is a specific* for typhoid fever, and I believe with our modern antiseptic practice the disease is as capable of being cut short as many other diseases about which we raise no question as to their abortion. If we accept Mendenthall's and Waugh's theory, that the germ of typhoid fever is caused by decomposition in the bowel, and I am sure it is the most rational, how can we believe otherwise than that it is cut short by remedies preventing such putrefactive changes. True, we may not prevent it after such change has *actually* taken place, but even then many of its distressing symptoms may be cut short, or even prevented. The distressing nervous symptoms, such as delirium, subsultus, etc., are now by some of the most distinguished men regarded as the invasion of the products of germ action, and in proportion as these germs increase will their product increase and these symptoms be aggravated. Now, then, if by modern asepsis, we prevent the formation of the germ, or by antisepsis we destroy the germ, and such productions, with their destructive results, cease, what goes with the theory of self-limitation? Will the remedies do this? Why not? Will they not prevent putrefaction and decomposition in other cases? Why not in this? If they will in other circumstances, most certainly they will in this. What are the remedies most likely to do this, and at the same time that are not hurtful in other respects? First of all I put mercury. Why? It has been a custom almost as long as we have had any knowledge of medicine to give mercury on the beginning of all febrile disorders. This practice has been routine and empirical in most cases, and yet a world of good has come from it. All authorities agree that our own systems have in them a laboratory which produces a substance far richer in antiseptic powers than almost any compound dispensed at the hands of the most skilful chemists, and this substance we call bile. It is a fact that it will prevent decomposition in the alimentary tract as nothing else will. So, then, in order that we shall have the quickest and most successful disinfection of the bowel, we must stimulate the liver to throw out an extra amount of this fluid, and there is nothing that will more successfully do this than mercury in some form, besides it in itself is highly antiseptic. The preparation I like best in these cases is the protoiodide in 1-100 grain doses every hour till its effects are produced. Many times I use calomel in small doses with good results. Who knows but that the old dose of calomel has aborted many a case of typhoid fever by this means. I believe it, although given with an entirely different purpose. Next to mercury comes zinc sulpho-carbolate, sub-carbonate of bismuth, naphthaline, resorcine, carbolic acid, iodine, the mineral acids, etc.; preferable among these I like the zinc sulpho-carbolate in 2 to 3 grain doses every two or three hours. I have found it an excellent remedy, especially when there is an astringent antiseptic needed.

Supportives.—Of course, with any treatment typhoid fever patients must be supported by the best means. And when we speak of the specifics for typhoid fever, we do not at all underrate the supportive treatment. Our sheet-anchor should be to prevent further infection, then palliate symptoms and support strength. It seems to me that, with these clearly before us, typhoid fever should carry with it not so much dread as formerly. And is it too much to hope and expect that the day is not far distant when we will have as much a specific for typhoid fever as we have for malaria, except it may be in a more protracted way. It need not be mentioned here as to how the best means of support shall be obtained. Our own individual ingenuities will select for us according to our own likes. Let our food be, however, of such a character as will require as little intestinal digestion as possible, especially as this is applicable to the active inflammatory or ulcerative stage.

There are many other things that could be said concerning the treatment of this disease, but I must stop lest I tire you too much, which I fear I have done already by the length and quality of this paper.

In conclusion, I would like to bear testimony to the efficacy of arsenite of copper in the treatment of diarrhœa of typhoid fever. I give it in infinitesimal doses of 1-5000 grains every few minutes. I prefer it to opium for many reasons, chief among which is the deleterious effect of opium over the secretory organs.

LA GRIPPE.

James A. Hodges, M.D., Fayetteville, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

La Grippe has been recognized as a well-defined disease for many years in medical literature. The unenviable distinction, however, which the recent epidemics of it has acquired by reason of sensational newspaper accounts, will cause it to serve as another millstone in the history of the nineteenth century.

History.—Its recorded history reaches far back into the early centuries. The first epidemic that is recorded was in the year 1173, when it raged with great virulence throughout Italy, Germany and France. During the fourteenth and fifteenth centuries there were seven different epidemics of this disease.

In 1510 the first epidemic which prevailed throughout the whole of Europe was recorded, and in 1627 it first made its appearance in America, beginning in the New England States and spreading thence over most of the Northern States.

In the eighteenth century there were eighteen epidemics, one of them beginning in New England in 1732 and spreading thence all over the globe.

During the present century this disease has prevailed at eighty-four different times, the last visitation occurring in 1879, when it was not very prevalent nor very virulent, except in the vicinity of Charleston, S. C.

The recent epidemic, which has just visited us, had its origin in Russia about November 1st, 1889. By December 15th the disease had spread over all northern Europe, and in the last week of that month it reached this country. It is doubtful whether to Boston or New York belongs the honor of having had the first case, but it is certain that both cities suffered severely from its ravages, over 200,000 cases being reported in the latter city within fifteen days after its first appearance. During the first week in the present year it reached this State, and in the two weeks following it was reported as prevalent in sixty-eight counties.

The American epidemic seems to have been identical with the

Russian influenza, both as regards the symptoms of the disease and its progress, its line of march being steadily from East to West, with some slight capriciousness, until it at last became truly pandemic in its character.

Varieties.—The French writers distinguish three forms in this malady—the painful or nervous, the gastro-intestinal and the catarrhal. As the disease has appeared here, however, only two distinct varieties have been well marked, namely, the nervous and the catarrhal. The former variety has been the most common, the latter occurring in only about 10 per cent. of the cases reported, but with increased severity.

Etiology.—The etiology of La Grippe is as yet entirely unknown, though the bacteriological study of the recent epidemic may yield some practical results. Peculiarities of climate, season or meterological conditions apparently have no influence upon the causation or diffusion of the disease, for it has been observed in Russia, for instance, in mid-winter and in the West Indies in mid-summer. As to its contagious or infectious origin, observers of the highest learning and repute differ very materially. Those holding the disease to be contagious defend their theory upon the following grounds; they say that they can adduce numerous instances of contagion from infected clothing, litters, etc.; that the disease follows the line of railways and commercial travel; that even in hospitals it has a tendency to affect patients in regular order, traveling from bed to bed; and that it chooses its victims among masses of the population living together under the same roof and under the same sanitary conditions, such as factories, garrisons and schools. On the other hand, the arguments advanced by those who contend that the disease is infectious are that its rapid and almost simultaneous diffusion precludes the idea of personal contagion, it having been known to have girdled the globe in forty days and to have spread throughout an entire hemisphere in six months; that there have been many persons who have never been subjected to the disease that have been seized with it only a few hours intervening between the attacks in each case; and they also maintain that if it were a contagious disease that it would be always present, not allowing thirty or forty years to pass without an outbreak, but constantly recurring as other like contagious diseases. It is evident, and must be admitted, that the adherents to neither theory have conclusively proved their proposition, for it is positively known that, while one or two members of a large family have been afflicted, others, though exposed to the disease, have enjoyed perfect immunity. Hence, while it may not be directly contagious, or at least only slightly so, it is known, unquestionably, that its propagation is owing largely to infection, and that the disease is due to some micro-organism, although no specific germ has yet been isolated, which is disseminated in and by the air, and probably also by the clothing and other material. This micro-organism is doubtless extremely minute and very light—capable of being borne by the upper as well as lower strata of the atmosphere, for this disease has been known to spread in a direction contrary to the prevailing wind at the earth's surface.

In the writer's opinion Prof. Rohé, in the following extract, has best summarized the action of this subtle germ as the cause of this most anomalous disease. He says:

"Is it due to some subtle change in atmospheric conditions, to a diminished resistance of the system to external influences, or to a micro-organism? If the latter, how can its rapid spread be explained? Perhaps all three of these factors may be invoked to account for its outbreak. We may, I think, rationally suppose it to be due to a micro-organism. This micro-organism may be assumed to be constantly present in the atmosphere, but only under certain atmospheric conditions does it become sufficiently virulent to become pathogenic. Under these conditions it attacks the mucous membranes of the respiratory passages and entering the blood produces the symptoms that characterize the disease. Those who would regard this view as absurd, are asked to study the conditions under which croupous pneumonia developes. The pneumonia germ (Sternberg's micro-coccus Pasteurii, Fränkel's pneumonia-coccus), is always present in the atmosphere or in the buccal secretions. It is only at certain times, or perhaps it would be more correct to say, under certain (atmospheric) conditions, that it becomes pathogenic, and results in outbreaks of pneumonia which sometimes assume an epidemic character."

Symptoms.—The onset of the attack is sudden in either variety, the period of incubation lasting from eighteen to twenty-four hours.

The cases suffering from the painful, or nervous, or febricular form of this disease are usually ushered in with a chilly sensation or decided chill. Pain is a prominent symptom and is felt all over the body without the ability to particularly locate it, but generally it is severest over the frontal sinus, in the back and through the lumbar region. All the muscles are sore to the touch, the eye-balls being painful on pressure. Vertigo is often experienced. The temperature rises suddenly and varies, according to the attack, from 101° to 105° F. The pulse is accelerated, but not in proportion to the high temperature. The tongue is not usually coated, but the bowels are obstinate. Sometimes a cutaneous rash appears, simulating scarlet fever or measles, but it is not uniform and is evanescent, and disappears in from twelve to twenty-four hours. As the disease progresses the painful sensations became almost unbearable, especially in the hips and bones of the lower extremities—the prostration is excessive and out of all proportion to the length of sickness or the seeming severity of the attack. The same prodromal symptoms, more or less aggravated, are noticeable in the catarrhal form of this disease, with the addition of sneezing and coughing and acrid discharges from the eyes, nose and throat, the result of a congestion of the mucous membranes of the respiratory tract. Sometimes, also, there is developed an acute catarrh of the stomach, with persistent vomiting.

In many of these cases the senses of taste and smell is lost temporarily.

Termination.—The disease in itself is rarely fatal. Only aged and enfeebled persons, or those suffering from consumption, Bright's disease, heart affections, or some chronic ailment, have succumbed to it. In the usual course of the disease the tendency in the nervous form is to recovery in from thirty-six to forty-eight hours, and in the catarrhal in from three to nine days. Convalescence in the latter form, however, is slow, oftentimes the patient remaining weak and prostrated for days and even weeks, melancholy is induced, and the slightest exertion is liable to produce a relapse.

Complications.—The complications of this disease are limited almost exclusively to its catarrhal form, the most common complications being capillary bronchitis, broncho-pneumonia and a chronic catarrh of the air-passages. Large numbers of cases of acute otitis media have also been reported. Acute pleurisy and pericarditis have likewise been reported as having been observed as concomitants of this disease. La Grippe has been followed, too, by a lethargic sleep which lasted several days, according to reports from Italy.

Peculiarities.—Males appear to be affected more frequently than females. Children scarcely ever have an attack of it, and the same is also true of negroes. Those who are engaged in outdoor occupations are more susceptible to an attack than those engaged within, it is said.

Treatment.—The best treatment is one which will tranquilize the patient, soothe and comfort him, open up his secretions, impress his excretory organs, and reduce his temperature. It must be varied, of course, according to the symptoms presented in each case, and consequently the treatment remains a *quaestio vexata.* An hundred species have had their respective merits vaunted, but no single one has been found to meet all the requirements. For the purpose of reducing the fever and relieving the neuralgic pains, antipyrine or phenacetine in 5 to 10 grain doses every two to four hours for an adult, or, better still, a pill containing 3 grains each of acetanilide and quinine, with 1-6 of a grain of cocaine hydrochlorate added, every three hours. For the catarrhal form, benzoate of soda, in 10 grain doses, every three hours, may be given as a stimulator of the glandular system, followed by expectorants and sedatives as needed, together with inhalations of the compound tincture of benzoin and atomizations of listerine, if the irritation of the mucous membranes of the throat is pronounced. In the writer's judgment great care should be exercised in determining the advisability of giving cathartics, for, in his experience, the convalescence has been slowest in those cases in which they were used.

Whatever may be the form of the disease, it is imperatively necessary to sustain the strength of the patient, and to this end tonic doses of quinine should be given, together with such stimulants as tea and rum, and ample quantities of such sustaining diet as milk and eggs.

The patient should be advised not to leave his room until he has entirely recovered, for all of the graver complications that have supervened have been occasioned by such imprudence.

Prophylaxis.—The same prophylactic measures which are indicated in all pulmonary diseases are to be instituted to prevent this disease, viz: the avoidance of exposure and excess. Old persons, especially, should wear warm clothing, adopt a plain and nourishing diet, and strive to maintain their physical constitutions at the highest possible point by a well-directed regimen.

THE REPORT OF SECTION ON MICROSCOPY AND PATHOLOGY.

By Julian M. Baker, M.D.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

This branch of medical science, the progress of which during the past year I am expected to report, has contributed in recent years more to the scientific perfection of our profession than any other.

Microscopy is gradually supplanting rational empiricism and accidental discovery in our progress toward the goal of a positive science. The results of patient and intelligent effort in this comparably new field of inquiry have been such in the past that I fear we are becoming impatient at the slow and steady progress now being made, and expecting important discoveries every year to produce a revolution in the scientific world. Koch and Klein, Pasteur, Cohn, Councilman, Sternburg, Fréire, and their host of co-workers, should not be expected to accomplish all things in so short a space of time. We have a right, however, to expect each year to bring forth much that will both interest and instruct us. The past year is characterized, not by brilliant or startling discovery in the field of microscopical research, but by the utilization, application and intensifying, so to speak, the truth of previous speculations, by improvement in technique, perfection of instruments and methods, and a large increase of the number of investigators. In order to present systematically the subject, we will consider it under three heads, viz: Technology, Histology and Bacteriology, with a casual consideration of practical results.

TECHNOLOGY.

In Technology many improvements have been made tending to the perfection of the methods of investigation. Without attempting a description of each, mention may be made of the *new hardening method of Bunda, the new injection apparatus invented by Borden*, the new method of imbedding suggested by Kraus, the new staining process suggested by Regnault, Leven and Borden, and the modification of Weigert's method by Pal.

In the hardening method of Bunda, the nucleus and protoplasmic structures are preserved. It saturates readily large organs, hardens in a few days and does not interfere with various staining methods. The specimen is: "First placed in a 10 per cent. aqueous solution of officinal nitric acid for 24 to 48 hours, and then, without washing, into a solution of pot. bi-chromate, 1 vol., water, 2 vol. After several hours the solution is renewed and bi-chromate of pot. increased to equal parts. The process requires only one or two days for its completion."

A new injection mass has been recommended by Miller, which overcomes many of the difficulties of the ordinary gelatine mass. It is prepared by soaking one ounce of French gelatine in 10 ounces of water for one hour; it is then melted over a water bath and strained, while warm it is divided into two parts, to one of which is added 2 grs. of common salt, and to the other 10 grs. of nitrate of silver; the two are then well mixed, well shaken, and 10 grs. of citric acid added and kept warm until dissolved. It will keep, and a section injected with it has a beautiful purple color and is perfectly translucent.

Another method, suggested by Taguchi, in Archives of Microscopy, is injection with India ink prior to hardening, the ink not staing the tissues outside the vessel wall.

An admirable method of imbedding is suggeste by Kraus, in *Buffalo Medical and Surgical Journal*, by hardening in 95 per cent. alcohol, then in oil of turpentine for eight days, after which the specimen is dried on filter paper and placed in melted parraffine at 122° F. for eight days longer, and finally on thick filter paper in an oven for two days. This is probably the best method for imbedding tissues.

As to new staining processes, henna is suggested by Regnault, saffron by Leven, alum carmine by Borden; each has its advantages in special cases.

By modification of Weigert's method, as applied to the central nervous system, Pal has made the process more rapid, elements more sharply defined, and is able to stain nucleus and nucleolus separately.

An accidental discovery by Letulle shows that cosin and caustic potash have a selective action for "amyloid infiltration of tissues."

Specimens treated with these materials, as suggested by him, show the following changes: "Elastic tissue becomes violet red, connective tissue is either uncolored or yellowish pink, muscular fibre becomes orange brown of varying intensity. The walls of the capillaries, peri-vascular and peri-capillary connective tissue show a brilliant rose color, masses of "Amyloid substance present a light yellow coloration."

MECHANICAL CONSTRUCTION OF INSTRUMENTS.

The improvements in mechanical construction of instruments have been the formula of Gundlach, by which apochromatic objectives can be used without compensating eye-peice, described in the "Microscope," Vol. I, p. 8; the automatic stage described by Edmunds in *Journal of the Royal Microscopical Society*; the camera lucida, invented by Thoma, to overcome the difficulty experienced in working low powers with those in use. Minot has invented a microtome in which the knife is statiouary, while the object is moved up and down by mechanical attachments so adjusted that the machine can make sections from 1-25 to 1-300 m. in thickness, as is desired. Bumpas, in the *American Naturalist*, and Reynolds, in the *Microscope*, described very simple section-smoothers which can be attached to the knife in a few minutes.

HISTOLOGY.

In the mucous membrane of the stomach Lukjanow has discovered what he terms "Nuclei Claviformis," being club-shaped bodies in nucleus with spherical nucleoli, or long irregular bodies, at times penetrating the nuclear membrane. It is contended that this discovery goes to establish the fact that the nucleus is an independent morphological element, and not a semi-fluid uniform mass, as formerly supposed. Investigations by Leser, reported in *Archives of Microscopic Anatomy*, in regard to ossification, shows that the formation of cells in the epiphsial cartilage takes place as it does in other tissues, "a series of typical changes in the cell nucleus, finally resulting in its division, followed by that of the cell." The arrangement of these proliferated cells in columns, together with a slight degree of mitosis, results in the growth of the long bones. The protoplasm near the medulary space appears like a vesicle, and near the border of ossification some large cavities are empty, others are filled with the remains of protoplasmic cell substance; there being no trace of karyokinetic figures, into these cells blood-vessels soon penetrate and establish connection with the medulary space, various forms of granular cells immediately appearing.

Polgakoff has found the peculiar spherical cell, discovered two years ago by Zawarykin in the subcutaneous connective tissue of a white rat, in the loose connective tissues throughout the body, but particularly in those parts where there are collections of fat. They closely resemble embryonal cells, being about twice as large as lymph corpuscles, with large globular nucleus and several nucleoli; nucleus is surrounded by a transparent layer of protoplasm, free from granular matter, of high refractory power and feeble staining qualities, while nucleus itself is rapidly stained. Under varying conditions of nutrition the cell enlarges, increases its protoplasm and has been observed five or six times as large as a leucocyte, the nucleus undergoing change at the same time, nucleoli become invisible, nucleus divides, followed by division of protoplasm, which arranges itself around each newly-formed nucleus. In this way each cell divides into two daughter cells with from three to seven nuclei, each with one or more nucleolus, a common protoplasmic layer surrounding the whole. The external layer becoming thinner, the daughter cells appear distinct from mother cells, protoplasm disappears, and they are set free as independent entities, shining fat globules sometimes make their appearance in the protoplasm, giving it a distinctly granular appearance, before segmentation takes place. At first these fat cells serve as nutriment for the dividing cell, and being distributed along the line of division facilitate the constricting of the daughter cells. They possess the power of amœboid movement the same as leucocytes, and no doubt penetrate the vessel walls. Under increased nutrition the granular appearance of protoplasm gives way to fat globules and presents a yellowish appearance with picrocarmine, whereas before it was uninfluenced. From this investigation it is a safe inference that this is a "definite physiological process, consisting of the elaboration of fat in the protoplasm of the spherical cell from the albuminous material carried to them by the blood," and the conclusion is drawn that this new spherical cell discovered by Zawarykin and studied by Poljakoff is really a *fat-forming cell.*

Kultschitzky, following up the investigations of Spee in regard to muscular fibre of small intestines, has found the muscular bundles from all three layers of the *muscularis mucosœ* destined for the mucous membrane, running up to the basement tissue just below the glands of Lieberkühn, whence they proceed to the villi parallel to the long axis of the gland; here they converge, running along the canal of each villus around the lacteal vessel. In their course branches are given off toward the periphery, finally becoming attached to the under surface of the epithelium, a portion, however, reaches the apex of the villus before expansion; being parallel to the axis of the villus, when these fibres contract the villus is shortened, and in the same way the oblique fibres widen the central canal, so that during the whole period of villus contraction the canal is open and no impediment is offered to the flow of chyle.

BACTERIOLOGY.

The progress of Bacteriology in the last few years is due directly to the introduction into common use of aniline dyes, the homogeneous immersion lense, substage illumination and solid culture media. These have given an impetus to microscopical investigation throughout the world, and promise for the future results surpassing anything yet accomplished, not only in the scientific and theoretical, but in practical medicine.

PHOTOMICROGRAPHY.

The method of preserving bacteriological cultures has recently been greatly improved, so that we may now say that photomicrography is in a fair state of perfection. The objection is urged that it is supplanting the use of pencil and paper in drawing the microscopical appearances, thereby depriving the student of the opportunity of acquiring skill in this line which will be of great utility. Its advantages so far overcome all objections that it seems this is unimportant. The method now generally employed is the use of a flat-sided tube in which to make the culture to be photographed and to immerse this in some medium of the same index of refraction as the medium it contains; by this the high lights are destroyed, and the external vessel being square-sided, the lights from the convexity of the glass are gotten rid of. By this method accurate impressions of the feathery growth of mouse septicæmia and anthrax, two crucial tests, can be had.

CULTURE MEDIA.

Quite a large number of culture media have been suggested by various observers, but no special advantage over old methods have been found, except, probably, in the "milk rice" suggested by Soyka, of Prague.

Noeggerath makes a most extraordinary assertion in regard to what he terms "the color method" of cultivating bacteria for purposes of easy and rapid diagnosis. It consists in coloring the nutrient media with aniline before the colonies grow, and differs from the "color reaction" as applied to the cholera spirillum inasmuch as this is applied to the cultures with ordinary chemical reagents. The colors used by Noeggerath are methylene blue, gentian violet, methyl green, chrysoidin and fuschi mixed with watery solution in definite proportions; the resultant color should be dark gray or bluish black. Seven to ten drops are to be mixed with the nutrient gelatin. When cultivations are made upon this mass each organism assumes a color peculiar to itself. As yet, however, this so-called discovery by Noeggerath has not been sufficiently proven to be accepted by scientists, but should it be true, its importance in microscopical investigation will be great indeed.

NEW STAINING METHODS.

Of the many methods suggested for staining the bacillus of tuberculosis, little or no improvement has been made on the Koch-Ehlrich method, most of the new methods lacking that degree of certainty so necessary to usefulness in making correct diagnosis.

SPECIAL INVESTIGATIONS.

Cornil and Toupet, in investigating an epidemic among the ducks in the Jardin d'Acclimation in Paris, have met with some curious results. The pathological changes observed were the same as chicken cholera, and an organism was found apparently identical, but its pathogenic properties were different in that no effect was produced upon chickens or pigeons and was fatal to rabbits only in large doses. The inference to be drawn is that "the virus is fixed in ducks in a constant degree and is inferior in strength to that of chickens."

The bacillus of Asiatic cholera has claimed much attention during the past year, but the work is still incomplete. The "Cholera Red," first noticed by Poel in 1886, and described in 1887 by Bujwid, is still supposed to serve the purpose of diagnosis. It is as follows: "To a 2 per cent. solution of peptone, ½ per cent. of common salt and bicarb. of soda are added to produce an alkaline reaction. This solution is inoculated with cholera bacilli and kept at 370° C. for twenty-four hours; if now HCl, H_2SO_4 phos. acid or oxalic acid be added, a beautiful violet red results." While a number of other organisms show the same reaction, none are so pronounced or occur in so short a time.

Zäslein concludes from his studies of Koch's common bacillus that it has altered in Europe into several varieties, and that varieties exist and grow under different environments from the imported ones. Bacilli obtained in simultaneous epidemics in Naples, Genoa and Palermo behave differently in various ways in plate and gelatin cultures, and a bacillus which answered the requirements of Koch for a month, later showed marked variations in the same nutrient media. The varieties are uncertain and irregular, but he concludes, they follow in their variations laws laid down by Darwin for animals and plants in general in respect to production of varieties. These very important observations under development by future observers may serve as a nucleus around which the grand theory of Evolution will crystallize and reduce the long periods of time necessary for the production of varieties in the animal and vegetable worlds to a comparative microscopical space in the bacterial world, thereby bringing the changes within the sphere of man's vision.

In experiments with the bacillus pyocanis Charin found it to produce disturbance of the kidney when inoculated. In a rabbit inoculated three different times the bacillus and albuminuria appeared, after a while the bacillus disappeared, albuminuria remaining and producing death. By this some light is thrown on the sequelæ of various diseases; scarlatina ends, nephritis, which was produced by the bacillus of the disease, remains after all trace of the organism has disappeared. So with diphtheria the infection ceases, but its consequences remain.

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—AND—

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How do you administer quinine? Are you acquainted with the many forms in which it may be given?

The utility of a remedy depends largely upon its genuineness, its purity, and its preparation in that form which is best adapted to meet the particular conditions or indications for its use. Modern pharmacy has achieved most important and useful results in the direction of improving the quality of remedies, of rendering them easier of administration and absorption, and better adapted for the purposes for which they are required. By this means, also, the range of therapeutic application of many remedies has been extended.

It is our belief that every physician worthy the name desires in pharmaceuticals, genuineness, absolute purity, uniformity and palatability. These qualities are indispensable to securing the best results.

Naturally these ends cannot be perfectly achieved without financial outlay. It follows that properly prepared pharmaceuticals are not the cheapest offered in the market. Cheapness in pharmaceuticals, as in other products, often means a sacrifice of excellence.

In carrying on all the operations requisite to manufacturing pharmaceuticals, our first consideration is to make as perfect products as careful attention to all the details mentioned can create. We spare no necessary expense in effecting this purpose.

Among preparations of remedies which we have done much to improve, we desire to briefly call attention to those of Quinine and Cinchona, to which we have given much study, and which justify us in claiming them to be superior to any other at the command of physicians.

We can merely mention here the names of the various classes of these preparations we make, an indexed descriptive list of all of them, and of our other manufactures, will be mailed to physicians requesting it.

PREPARATIONS OF CINCHONA AND ITS ALKALOIDS.

These preparations comprise: Fluid Extract Cinchona Aromatic; Fluid Extract Cinchona Calisaya, U. S. P.; Fluid Extract Cinchona Compound; Fluid Extract Cinchona, pale; Fluid Extract Cinchona, red; Fluid Extract Cinchona, red comp.; Liquid Cinchona Calisaya, normal; Liquid Cinchona, red, normal; Elixirs of Calisaya, Alkaloids and Barks, and a variety of convenient combinations of these with other medicinal agents in the form of Elixirs; Wine of Calisaya; Syrup of Iron and Quinine Citrate; Syrup of Iron, Quinine and Strychnine; Red Cinchona Cordial; Soluble Elastic Capsules of Quinine, 2 to 5 grains; Hypodermic Tablets; Tablet Triturates; Granules; Lozenges, Oleates and Pills of Quinine, Cinchonine and Cinchonidine, alone or in combination with other tonic agents largely prescribed.

Our Pills are invariably made to meet the following requirements: Permanency, purity, accuracy of ingredients, solubility permitting of absorption in even impaired condition of the alimentary tract.

QUININE HYPODERMICALLY.

The majority of physicians do not administer quinine hypodermically, owing to the fact that it is supposed that it causes irritation, pain and possible induration and suppuration. If a proper solution is carefully used, however, there is little danger of this. We quote from Bourneville & Bricon's work on Hypodermic Medication as follows on this topic:

"Glycerine is often the best vehicle. It dissolves one part in six by weight, by means of heat, but when cold only three per cent. The following solution is, however, more desirable for hypodermic use, viz: ℞ Muriate Quinine (P., D. & Co.), 32 grains; Dilute Hydrochloric Acid, 15 minims; Distilled Water, up to 160 minims (5 minims of this solution is the equivalent of 1 grain of quinine). This solution preserves its limpidity without any precipitate for several months.

VEHICLES FOR QUININE.

Quinine may be administered, when there exists special abhorrence of it, by capsule, by inunction of the oleate, and hypodermically. There are also many vehicles for its administration. Probably the choice of these are the preparations made of Licorice and Yerba Santa. An article entitled, "Vehicles for Quinine," containing suggestions as to the use of the following preparations as vehicles for Quinine will be mailed to physicians requesting it: Fluid Extract Licorice for Quinine; Aromatic Syrup Yerba Santa; Elixir Dandelion Comp.; Elixir Eucalyptus Comp.; Elixir Licorice Aromatic; Cascara Cordial.

PARKE, DAVIS & CO.,
DETROIT AND NEW YORK.

IMMUNITY.

The question of immunity against first attacks of diseases, or its establishment after the first attack has been gone through with, has claimed much attention in the past year and great effort has been made to determine methods of prophylaxis and the nature of the tissue changes which bring it about. Histology shows many conditions explanatory of the fact, but the varied character of the histological soil on which parasitic nosogenesis takes place, and the variety of cryptogamic seed from which it originates, affords a satisfactory explanation of the difference of conclusions arrived at by various observers. Histo-chemistry will eventually furnish explanations of the chemical conditions destructive to cryptogamic developments and throw much light on the life of pathogenic bacteria. The French investigators Sola, Roux and Chamberlan have studied this subject and attempted to establish this immunity by inoculation with chemical products instead of attenuated virus, as originated by Pasteur. "The destruction with high temperature of the *vibrion septique* and the bacillus of malignant œdema leaves behind a chemical substance which has been found to be a vaccine against typhoid fever has been found, and an attempt is now being made at the Pasteur Institute to make one against Asiatic cholera.

Rothlauf bacilli, according to Emerich, disappeared from the bodies of rabbits previously rendered insusceptible by inoculation in from fifteen to twenty minutes, whether a large or small number of bacilli were injected. This destruction occurs by the formation of a soluble bacterial poison by the tissue cells from the elements broken up by the bacilli. The poison is produced in the cell, or outside, when the plasma carries the soluble material into the intercellular lymph spaces. In rabbits this anti-bacterial poison is formed at the time of second invasion and not previous to it, no phagotycosis being observed. Sola concludes, from experiments on this line, that the hereditary predisposition consists in the transmission of a vulnerable epithelial quality; thus a tuberculous parent may transmit to the offspring certain deficiencies of the pulmonary epithelium which furnish a fertile histological soil for the propagation of specific bacilli.

Läffler has studied the changes in milk in relation to bacteria and written very extensively recently on pathogenic organisms in this common article of food. He found the *staphylococcus aureus*, *albus* and *citreus*, when added to a litmus, colored milk would change the color to white, the creamy layer being red, showing the formation by the bacteria of substances other than lactic acid. Anthrax bacilli precipitated the casein and peptonized it with slightly alkaline reaction. Typhoid bacilli produce a slightly red tinge, showing the formation of lactid acid. Erysipelas coccus reddens without coagulation. The bacilli of tuberculosis, glanders and diphtheria produce no change, while the pneumococcus decolors it. Koch's cholera spirilla decolor it from below, while over the white layer there appears a grayish blue color or else a reddish one. Valuable diagnostic characteristics will no doubt proceed from these discoveries.

The great difficulty experienced by surgeons in sterilizing their hands has been explained by Mittman by means of his study of nail-dirt. He found seventy-eight varieties of bacteria in twenty-five experiments from material furnished by cooks, barbers and waiters, which goes to prove the injunction in regard to cleanliness of nails in preparation for antiseptic operations to be well-founded.

The lower strata of air in sick rooms, according to Neri, do not contain bacteria, but four or five feet above the sick-bed he found sixteen varieties of bacteria, micrococci, streptococci, bacilli and micrococci of septicæmia. Ventilation should then be free from below and upward, and not from above downward.

The subject of suppuration has been reopened by Christmas, who claims to be able to produce it without the presence of bacteria by the inoculation of chemical substances.

Many articles have appeared in regard to the bacilli of tuberculosis and typhoid fever, but no important advancement has been made.

Sternberg's adverse report to the claims of Freire has called out a strongly worded reply from the Brazilian scientist, but as yet we must regard Freire's reputed discovery of the organism producing yellow fever and his method of protective inoculation as *sub judice*. Sternberg's work is being continued and Gibier has been engaged in studying the disease on the part of the French Government.

Those results of retrograde metamorphosis which so nearly resemble vegetable alkaloids in characteristics and composition continue to command much attention. They are, in fact, true animal alkaloids, and some of them are produced during life by normal cell activity in animal tissues and by cell activity of the ferments. Two great classes are constantly recognized, Ptomaines and Leucomaines; Ptomaines being the name given to those alkaloids formed in the process of fermentation or putrefaction after death, Leucomaines referring to those found in the tissues during life. While they are exceedingly difficult to handle in experimental research, it is pretty well settled that pathogenic bacteria owe their activity, to a considerable extent, to the formation and toxic effect of these alkaloids. The subject is still in its infancy, so it would be useless to give results of individual experiment.

Much work has been done on the new theory of Phagotycosis as formulated by Metchnikoff, and it has attracted attention throughout the world; briefly stated it is, that the white blood globules devour and digest pathogenic bacteria entering the body, various researches showing that the leucocytes took in and devoured large quantities of splenic fever bacilli, quite a number, however, becoming degenerated outside of the phagocyte. The question then arises, do the phagocytes digest the bacilli, and are they the only tissues that do? Flügge, Bitter and Nuttall have attempted to determine this point, but offer no satisfactory solution. As a portion of the bacilli die off or are destroyed before coming in contact with the phagocytes, it seems probable that they destroy only degenerated bacilli, or, as it has been expressed, are only crematories, as it were. The question is still unsettled and will be a fruitful field for future inquiry.

Treatment of Dysmenorrhœa.—Dr. Cheron, in the *Semaine Med.*, says: "Inject, hypodermically, a few days before the appearance of the menses, 75 grains of a 2 per cent. solution of carbolic acid, either into the sacro-lumbar region, or the belly. The injections are to be repeated two or three times a day until the menses appear. The same course is begun eight days prior to the next menstruation, a daily dose of 150 grains being used. Even in the intensest dysmenorrhœal attacks this has been found successful. —*Archives of Gynœcology, Obstetrics and Pœdiatrics.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

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Thomas F. Wood, M. D., Wilmington, N. C., } Editors.
Geo. Gillett Thomas, M. D., " }

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HOW CAN WE EFFECT MORE CORDIAL RELATIONS BETWEEN THE MEDICAL AND THE PHARMACEUTICAL PROFESSIONS?

We assume that it is of importance that the medical and pharmaceutical professions should be on better relations with each other, since it is obvious that the tendency of the druggist is to be purely a merchant in drugs and sundries, and of the doctor to ignore pharmacy entirely. The knowledge which the doctor whose career began fifty years ago had of the appearances and properties of drugs and of the pharmaceutical processes in common use, put him within easy access of the profounder knowledge of the action of drugs he administered, and this part of his education every one recognizes as an advantage above that of his competitor, who, in the absence of such knowledge, bases his beliefs upon the advertising matter so diligently placed within the reach of every one.

As already intimated, the druggist is becoming a merchant in sundries, having more or less special knowledge of the pharmaceutical processes necessary to compound a prescription, but standing several removes from the crude drug, inasmuch as the fluid extracts and powders, etc., come to him ready prepared by the wholesale manufacturer, he assuming no responsibility as to the genuineness of the original source of it, being satified entirely with the skill and integrity of the manufacturer.

The reason of this is that to the drug business, as to the medical practice, there are two ways of approach, one by the commercial door, the other upon the basis of educational preparation. The druggist whose idea is solely that of a livelihood and a higher degree of pecuniary emolument in his occupation, must pay as much attention to the profit on playing-cards, plush boxes, cigars and confectionery as he does upon the recognition of a genuine specimen of Turkey rhubarb or the freshness of a sample of ergot. The doctor, too, whose ambition is to make at once a financial success, will be forward to make such use of the clap-trap of display in his office and his equipage as will dazze the eye of the multitude, his library at the same time being but a lean collection of showy shelf-keepers, or the more sagacious use of dummies, such as Dr. Billings recognized in the office of a practitioner he visited, which consisted of eviscerated patent-office bindings bearing the titles of rare books which made even this veteran bibliographer's eyes wonder. The mercenary doctor and druggist, therefore, are not far apart.

There is a small class, though, in both professions, who are prepared by their education to meet upon a common ground. This has one practical example in the conference of the Committee of Revision of the Pharmacopœia, and the utility of these meetings has in a measure suggested these thoughts. The matter may be summed up after this fashion :

The doctor, for his own sake, ought to know more of materia medica, and therapeutics in order to be a leader and not an ignorant follower of any designing vender who may come along. The druggist ought to be able, after hearing the suggestion of the needs of the physician in the treatment of the sick, to supply him a finished product. In practice, though, the seductive agent comes along with his samples, creates a demand in the physician's mind, the druggist loads up with the new stock. The doctor, upon thorough trial, may not find the preparation as useful as represented—a pitfall from which he might have been delivered had he been properly educated, or had there been proper professional understanding between the two. The result is, the druggist gets a lot of stock he can do nothing with, because the credulous doctor by this time may have found a new favorite compound, and the druggist asked to repeat the experiment, and as he seems compelled to do it to keep his customers, he must make his prices higher than those mentioned to the doctor by the travelling agent, and there are grumblings and dissatisfactions on the part of the patients.

To those who have observed this peculiar course of events there must come a conviction that most ready made compounds are a burden to druggists and doctors and patients, and if our doctors had the knowledge of pharmacy necessary, or had the assurance of of the skill of their druggists, by far the majority of what are now virtually proprietary compounds could be made extemporaneously and at a reasonable rate. The issue of the National Formulary showed that there is such a thing as putting in book form formulas that meet the demands of the doctor, and these could be largely increased if the doctors would take the same pains to let their wants be known as the compilers of that Formulary took to select them from the best sources in their reach.

The real reasons why our doctors do not see the necessity for some understanding with the druggist is because the experiment of a conference has never been tried. We learn that such a movement is about to be inaugurated, and if such members of the pharmacal profession as we could select were members of the conference we are certain that good results will follow.

We cannot close these remarks without again urging upon medical students the necessity of the practice of pharmacy in the dispensary or drug store. An active student could easily put in a few weeks during his course, and find it a matter of recreation as well as a source of practical knowledge; and if this future field is to be the country, where he will be his own druggist, he will find this knowledge indispensable.

To those druggists who carry on shop-prescribing, based upon the files of prescriptions of which they are the custodians, we wish to say—abandon your disreputable and dangerous practice, honor the physician by being his helper, protect his reputation when you find his prescriptions inaccurate, and your business will increase and you will elevate your shop-keeping to a profession.

A NEW AID TO DEFECTIVE HEARING.

Deafness is the sequel of scarlatina, and cerebro-spinal meningitis is a somewhat common malady in all parts of the country. As a rule, little or nothing is attempted in the way of cultivating the small remnant of the hearing power which usually remains to those thus afflicted. Yet if the parents and friends of persons thus afflicted seriously undertook the work of educating and drawing out this remnant, good results would in most cases follow, as has been shown in two cases which have come under the writer's observation.

Mr. Gerald McCarthy, botanist of the State Experiment Station, suffered, at the age of 16, a nearly total loss of hearing as the result of an attack of meningitis, and for fourteen years has been thus afflicted. Recently, at the suggestion of one of the editors of this JOURNAL, Mr. McCarthy began to experiment with different tubes. As the result of some experience he had an instrument made by a New York instrument-maker, which is a modification of the Carrier tube. As originally made the ear end of the Carrier tube is narrowed into a cylinder which fits into the ear. This part of the apparatus is objectionable, as it often causes local inflammation and the volume of air and sound projected against the ear-drum soon causes dizziness and headache. Mr. McCarthy had the makers remove the small cylinder and substitute a bell-shaped ear-piece similar to the mouth-piece, to cover the entire ear, so that the sound strikes the drum in a more diffused manner and does not induce headache or dizziness.

Mr. McCarthy finds the right ear much better than the left.

With the tube he can readily discern the different notes of the musical scale played upon a piano, but finds that he cannot connect the tones into a melody. He also finds it easier to distinguish single letters than words. With practice, however, he will undoubtedly improve.

Mr. McCarthy's experience should encourage all who possess any remnant of hearing to strive diligently to cultivate and increase it.

It is to be noted particularly in this connection that success can be looked for when practice with the tube is begun at an early day after the deafness. It takes close, patient attention on the part of the instructor, for to gain success each word must be pronounced until the patient repeats it in an audible voice correctly. It would be an unusual deaf-mute establishment where an instructor could give the time or leave the patient to use the instrument, but we have much that is encouraging in the results where the instruction has been done at home with that patience that can only be prompted by a mother's love.

THE FIRST OVARIOTOMY.

We give on the opposite page a cut of the residence and office of Dr. Ephraim McDowell, in Danville, Kentucky, where, in 1809, the first ovariotomy was performed.

Dr. Lewis S. McMurtry, in a paper before the Philadelphia County Medical Society, thus describes the operation as done by Dr. McDowell :

"The operation, of course, was done without an anæsthetic. The incision was made to the left of the median line, about three inches external to the border of the rectus muscle, and was nine inches in length. After opening the peritoneum he first tied the pedicle with a strong ligature, and then cut open the tumor and removed its contents. He then divided the pedicle and removed the sac. As soon as the incision was made into the abdomen, he states, the intestines rushed out upon the table, and were not replaced until the operation was completed, which, he adds, occupied twenty-five minutes. He then turned the patient on the left side to allow all fluids to escape. He closed the incision with interrupted sutures,

M.N.-Cd.

REVIEWS AND BOOK NOTICES.

Physical Diagnosis and Practical Urinalysis. An Epitome of the Physical Signs of the Heart, Lung, Kidney and Spleen in Health and Disease. Edited by John E. Clark, M.D., Professor of General Chemistry and Physics in the Detroit College of Medicine. Forty-one Illustrations. Cloth, 12mo., 200 pages; price, postpaid, $1.00. Illustrated Medical Journal Company, Publishers, Detroit, Michigan.

"In the arrangement of this work the object has been to present to the medical student and practitioner a systematic and condensed course of Physical Diagnosis and Urinalysis. The portion on Urinalysis will be found to consist of two parts, practical and reference. The editor believes there is a demand, in many medical schools and by many medical students, for a short, definite course of organic chemistry, touching alone on those subjects of every-day interest to the medical practitioner, such as the analysis of urine, chemical and microscopical; the examination of sputa, bile, blood, bacteria, etc.; methods for the quantitative estimation of the more important urinary constituents, normal and abnormal, such as urea, chlorides, sugar, albumen, etc. To meet these requirements the editor has compiled this volume. Teachers in the laboratory will find the work of advantage as giving the plan for definite instruction, with such manipulatory details as will enable students to pursue the course of urine analysis with the minimum of assistance. This is essentially the same as the course given by the editor in the college with which he is connected. Plates have been introduced as needed to still further assist in elucidating the text."

We give the publisher the advantage of his own synopsis of the merits of this little book, because it appears to be a just estimate of its features. It is a good book for the many uses it is designed to fulfil.

A Text-Book of Comparative Physiology for Students and Practitioners of Comparative (Veterinary) Medicine. By Wesley Mills, M.A., D.V.S. With 476 Illustrations. New York: D. Appleton & Co., 1890.

This is a compact volume of 636 pages. The subject is treated rather differently from the one familiar to some medical students—Carpenter's Comparative Physiology—and will be new to most physicians who have not kept up with the literature of the veterinary branch of medicine. The author has not put us off with a mere condensation of his recent admirable work on "Animal Physiology," but has given us essentially a new text-book. The interest the general practitioner will have in this volume will be two-fold: first, because of the better understanding we get of the functions of man by their analogy to those animals lower in the scale, and secondly, because of the interest that all doctors have in North Carolina in all the domestic animals, especially the horse, and we might add a consideration very little inferior to the others, that move the medical sanitarian, is recognizing the important relations the diseases of animals bear to those of the human subject. As physiology must be the basis of all sound pathology, the doctor who would be above the aid of the stupid and prejudiced farrier of his neighborhood, cannot afford to go through the world without a knowledge of the physiology of the animals which bear so important a part in the comfort and labor of his business: now, with the aid of Chauvean's "Comparative Anatomy of the Demesticated Animals," and this admirable work, he will be well off. The illustrations are selected from the very best sources, and the whole execution of the work is entirely satisfactory.

A Text-Book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M.D., B.S.C. Philadelphia: Lea Brothers & Co., 1890.

Therapeutics is apparently the favorite field for literary ventures these days, in strong contrast to a quarter of a century ago, when expectant medicine reigned supreme.

The general arrangement of the book is one for convenience of reference, opening with a section on "General Therapeutic Considerations," including Mode of Action of Drugs, Mode of Administering Drugs, Dosage, Idiosyncrasy, Absorption of Drugs, Duration of the Action of Drugs, Indications and Contraindications, and Combination of Drugs for a Joint Effect.

The second part treats of Drugs, all the recent ones of any repute having been introduced.

The third part treats of Remedial Measures Other than the Drugs and Foods for the Sick, which includes Acupuncture, Antiseptics, Cold as a Remedy and for Fevers, Counter-irritation, Disinfection, Heat, Kataphoresis, Venesection, closing with about nine pages on the directions for preparing food for the sick.

The forty pages of diseases, with their appropriate remedies, is the most important part of the volume, and the one upon which the interest of the reader will centre, and the one to which the practitioner will oftenest refer.

Not only this part, but the Materia Medica section is arranged alphabetically—a plan which is, upon the whole, the most useful to everybody, for no system of classification has been devised which is entirely satisfactory.

The author has given largely of his personal experience, and small attention to the opinions of others, which will cause many of his readers to take issue with him, especially in the neglect of some well-known remedies which are favorites, and in the administration of exceedingly minute doses. Many places we have marked to comment upon, but we have found the volume replete with fresh practical matter, and in every way worthy of a place on the office table as a reference book, the author evidently knowing what kind of a book would please the practising physician.

The table of doses and the alphabetical index of diseases and remedies is a most useful feature, giving the reader most useful hints, and serving also as an index to the body of the book.

The volume is well issued by the publishers, the type and paper both being pleasant to the eye.

Dr. W. T. Herndon has moved his drug store from Morrisville to Elon College, N. C., and will also locate at the latter place for the practice of his profession. Readers will please note this change.

CURRENT NOTES.

THE CAPILLARIES ARE GLANDS.—Prof. Wesley Mills, in a lecture ''On the Blood and Blood-Vessels in Health and Disease," says: "*The capillaries of the body are glands.* They are glands, not only in the glomeruli of the kidney, but everywhere else. For this he gives some good reasons which are at least better than the old idea that the filtration through the urinary tubules is due to arterial pressure."

THE ADVICE TO INTENDING MEDICAL STUDENTS BY ONE WHO HAS REACHED THE TOP-SHELF.—Dr. Ward, in the *American Lancet*, says: "Still, young man, be not discouraged. If you are intelligent, healthy, love the profession, have good "horse sense," and money to back you (this last is most important), you will climb in spite of every obstacle, and finally arrive 'on the top-shelf,' where, as Webster said, 'there is plenty of room,' and where I now sit with my feet dangling over the heads of the toilers below."

DR. WILLIAM BRODIE.—The removal by death of Dr. William Brodie, of Detroit, makes to us a great gap in the medical profession of the Northwest. He was a genial, whole-souled friend, a public-spirited physician, who did good work in promoting the usefulness of the American Medical Association, having the *bon homie* necessary to put a whole Association in a good humor. He was one of the prominent figures in the Michigan medical profession, filling many important offices, laying down his work at 67 years of age and full of honors. His memory has a bright place in the hearts of many in the South who have felt his cordial grasp at the medical meetings. He was at one time editor of *The Peninsular Journal of Medicine*, and the original editor of what is now *The Therapeutic Gazette.*

ELDER AS A DIURETIC.—This old remedy, *Sambucus Canadensis*, has had its day of adversity and prosperity like many other herbs, but now comes into notice again with a more scientific introduction by the *Gazette Médicale de Paris* and *The Therapeutic Gazette.* Old Nich. Culpeper says of the berries (1653): "The decoction of the berries in wine provoketh urine," and that "either leaves or

Bark of Elder, stripped upwards as you gather it, causeth Vomiting; but stripped downward, it purgeth donwards." The present dosage of the inner bark is a large handful to 3 pints of water boiled down one-third, and the quart sweetened and aromatized with peppermint and taken in one day. It must not be forgotten that elder acts sometimes as a drastic cathartic, and its use should be watched that not a too prodigal administration be attempted at first. Professor Peyre Porcher (*Resources So. Fields and Forests*) says that the plant contains valerianic acid, but gives no account of active principles. The American and European elder are almost identical therapeutically.

Dr. James Matthews Duncan.—The death of Dr. James Matthews Duncan will be sad news for his many admirers in this country. He was a Scotchman, born and educated at Aberdeen, went to London in 1877 as a lecturer at St. Bartholomew's Hospital, but, like some of his predeoessors, was called to the metropolis because of his high abilities. His contributions to medical literature were of the most substantial and trustworthy character, and the English medical journals say of him that he not only was a diligent worker, but did a great deal in directing, planning and guiding many younger medical men in the road to distinction. He was born in Aberdeen in 1826, and died in London early in September, 1890. His first work was the investigation of anesthetics as an assistant of Sir James Y. Simpson. His great works are—"Fecundity, Fertility and Sterility," his Guelstonian Lectures "On Sterility," and "Researches in Obstetrics and the Mechanism of Natural and Morbid Parturition." His lectures are considered the most important part of his work as being exhaustive of the whole range of his professorship. He was eminently a conservative obstetrician, holding the most advanced tenable positions of his department, and having very little to retract in his teachings. He did a great practice in addition to his teaching, and, true to his original intention, he quit midwifery practice at 60. The *London Lancet* gives the following portrait of him: "In appearance Dr. Duncan was of middle height, powerfully built, with an upright, firm carriage. His head was massive; his face was generally impassive, but capable of great expression. His eyes were clear and reflected his moods. His voice, tinged with the accent of his birth-place, was grave and manly. His manner in lecturing was slow, direct and impressive, and his hearers felt that he was filled with the importance of the subject. He lived in his family, had no clubs, many friends, few great friends, but to such what a great friend he was."

TREATMENT OF CHOLERA BY G. SHERMAN BIGG, F.R.C.S.—A detailed account of a treatment which must vary under different circumstances would be of little interest, but a description of the main features would probably prove of use. At the very commencement of the disease, prior to any manifest evidence of collapse, a dose of opium in combination with castor-oil or an astringent, should be given, but *one and only one* dose, and not under any pretext whatsoever is any more to be given until convalescence is thoroughly established. Cold but not iced water, acidulated with vinegar or dilute sulphuric acid, should be given *ad libitum*, notwithstanding the fact that it is speedily vomited. To attempt to quench the craving for a long drink by small lumps of ice is heart-rending treatment, and merely substitutes retching for vomiting without the transient relief which follows the rejection of the fluid. The body should be enveloped in a wet sheet, or immersed in a soda bath, and the cramps relieved by constant kneading of the muscles, a process which is of greater efficacy than simple rubbing of the surface. Occasionally chloroform inhalation is imperative; but the administration should depend more on the frequency of recurrence than on the severity of the cramps. Tepid water in large quantities should be given by means of an enema, oftentimes repeated. In the early stage of the disease, and so long as the power of absorption is not quite arrested, food should be given frequently, and in very small quantities. Half a teaspoonful of equal parts of lime-water and milk—the latter is too heavy by itself—or the same quantity of chicken or beef-juice, also diluted, should be given every ten minutes during the day and night, increasing the quantity and diminishing the frequency as the patient's condition improves. Alcoholic stimulants are best avoided, though I have seen cold champagne, given a tumblerfull at the time, prove grateful to the patient and apparently beneficial. The first symptom of convalescence is the presence in the bladder of a few drops of urine, which, if allowed to remain, soon become most ammoniacal. I consider this a most important guide to prognosis, for with ordinary care recovery is almost a certainty, unless, as I have already stated, large or repeated small doses of opium have previously been given. As soon, however, as the urine is detected (and I pass a catheter frequently to ascertain the progress of the case) the bladder should be repeatedly irrigated. Subsequent treatment consists of astringents and tonics. Food should still be sparingly allowed, and any restlessness controlled by small doses of henbane. The sequelæ of cholera require appropriate treatment.—*Lancet.*

THE TREATMENT OF ENLARGED BURSÆ AND GANGLIA.—Mr. Bond states, in the June, 1890, number of the *Practitioner*, that he is strongly in favor of the treatment of enlarged bursæ in the neighborhood of large joints by the radical method of excision of the whole or a large part of the cyst-wall. In dealing with these swellings in the popliteal space, the incision must be made well down to the cyst-wall before beginning any dissection; if this be done, and the cyst well defined while tense and before it is opened, it can be isolated without difficulty. It is then best to lay it open, and ascertain from within what extensions and communications it has; these must be dealt with, and then as much of the cyst-wall removed as possible. In dressing the wound, pressure should be applied with wool dressing, and the limb bandaged in a semi-flexed position, so that the skin and soft parts fall together, and a tightly-stretched scar is avoided. The same method may be extended to the enlarged bursæ over the olecranon and patella. The treatment of the swellings in the sheaths of the tendons in relation to the wrist-joint is next discussed. Those simple ganglia which are too large to rupture, are best treated by excision; an incision is made over the swelling, which is isolated as far as possible; it is then laid open and its prolongations defined; as much of the cyst-wall as can be isolated is then cut away, and the posterior portion lying over the wrist-joint is left. As a rule, the wound heals by first intention without any adhesion of the tendons. In cases of compound ganglia, the operation is sometimes very complicated, the tendons being studded over with a velvety membrane and vascular fringes, like the lining membrane of the cyst-walls. In these cases the tendons must be picked up separately and systematically cleaned one by one; when this is done, the wound should be stitched up, and, as a rule, good movement is obtained in a short time.—*London Medical Recorder.*

Death of Dr. John McDonald.—We announce with great sorrow the death of our esteemed friend, Dr. John McDonald, of Washington, so well-known to the profession in this and other Southern States. Only a few weeks ago he was seeking health at the springs, little appreciating that death was so near at hand. We have received no particulars of the circumstances of his sickness and death, but hope to have an obituary notice in the next Journal. Dr. McDonald held many positions of honor in his native State. He was an assistant surgeon in the Confederate States Army, and for six years a member of the North Carolina Board of Health.

Fallacies Concerning Syphilis.—In a recent issue of the *Physicians' Leisure Library* Dr. E. L. Keys, the well-known Syphilographer of New York, publishes the following *fallacies* which he has found to be more or less commonly entertained both in and out of the profession, in order as far as possible to correct them: (1) Syphilis is necessarily a severe disorder, disfiguring its possessor, entailing social ostracism, destroying the domestic life of its victim, and impressing its stamp upon his issue from generation to generation. (2) There are essential differences in the quality of the syphilis poison—in other words, there is a mild and a virulent syphilis, *per se.* (3) A local sore appearing upon the penis after sexual exposure, necessarily means that a poisoning of some sort has been experienced, while a recurrence of sores upon the penis without further exposure is proof positive of syphilis. (4) Syphilis is at first a local disorder, capable of modification by local treatment. (5) Syphilis is acquired only during sexual contact, and is contagious only through that channel. (6) A person with syphilis is so poisoned that he may communicate the malady by any contact of his body with that of another. (7) Mercury is an evil only less serious than syphilis itself, and to be accepted in the treatment of syphilis on the same ground that one would advocate jumping from a high window in order to escape from a burning building. (8) Mercury, when used by the method called "the tonic treatment," effects a cure by virtue of its tonic action. (9) Mercury cures syphilis. (10) The iodides are less harmful, and as effective, in the treatment of syphilis, as mercury. (11) The treatment of syphilis consists only in the use of mercury and the iodides. (11) Syphilis in the parent often shows itself as scrofula in the children. (13) The Hot Springs of Arkansas have some specific effect in modifying the syphilitic poison, curing the disease, or at least shortening its duration.—*Memphis Medical Monthly.*

ARSENITE OF COPPER IN ACUTE AFFECTIONS OF THE INTESTINE.—Dr. H. Schulz, in the *Deutsche med. Woch.*, No. 18, commends Aulde's treatment of acute intestinal diseases by arsenite of copper. The best method of administering the drug is by frequently repeated fractional doses, for children dissolving one one-hundredth of a grain in four to six ounces of water, and giving a teaspoonful of the solution every ten to thirty minutes. It is especially serviceable in recent cases before inflammation of neighboring organs commences; and he has employed it in severe cases of epidemic cholera, cholera morbus and dysentery. He believes the favorable action of the drug is due to an energetic stimulation of the diseased intestine, and a consequently conferred capacity to resist the pathogenic micro-organisms.—*N. Y. Medical Journal.*

TREATMENT OF TYPHOID FEVER BY COLD WATER BATHS.—"M. Debove, in a paper read at the last session of the Paris Société Médicale des Hôpitaux on the treatment of typhoid fever by cold baths, declared that he had not been convinced by a recent paper of M. Merklen that this was the best treatment. His own mortality during the last six years was 11 per cent., or during the last two years, 9·2 per cent. Now M. Meklen estimates the mortality from typhoid in Paris hospitals treated by cold baths as 9·92 per eent. M. Debove does not prescribe active medication, but believes in keeping up copious diuresis. To this end he supplies his typhoid patients with abundance of liquid, and if the quantity of urine passed does not appear to him sufficient, he 'stimulates the zeal' of the attendants to get the patient to drink more; the total amount of fluid which should be taken daily ought, he says, to be not less than five or six quarts. M. Debove, who does not deny the good effects of baths, suggests that they are probably due to the increased quantity of urine secreted, which, as in the case where diuresis is produced by drinking, carries off the *materies morbi* from the system. According to M. Gérin-Rose, who followed M. Debove, still more successful results may be obtained by carrying out the following indications: (1) To produce intestinal antisepsis by means of naphthol and salicylate of bismuth, (2) to lower the fever by means of very large doses of quinine and warm baths (at 86° F.), and (3) to keep up the patient's strength. Of forty-three patients treated during the last eighteen months in this way, only one died."—*Lancet.*

COOLING OINTMENTS AND CREAMS.

The medical man frequently desires to prescribe a cooling ointment as an application to various burning skin diseases, and it has long been felt that there was room for a better preparation than the old "Cremor refrigerans." This better preparation is indicated in a paper by Unna on cooling salves and ointments. He finds, although simple lanolin ointment, even when containing more than its own weight of water, is not permanently cooling, but rather the reverse, that a mixture of one part of lanolin with two of benzoated lard and three of water, far surpasses in its effect any "cold cream" or ointment yet made. A mixture with rose-water instead of plain water he recommends as a substitute for ordinary cold cream, and proposes to make a cooling lead or lime ointment for various skin affections by substituting for the rose-water liq. plumb. subacet. or aqua calcis—always in the same proportions.

The place of ordinary zinc ointment can be advantageously filled by an ung. zinci refrigerans, which consists of lanolin 10 parts, ung. zinci benz. 20 parts, and aqua rosæ 30 parts.

Of course it is quite possible to combine the cooling effect with what may be distinguished as a true medicinal or specific action. Thus, a cooling ichthyol ointment, of great value in the treatment of rosacea, may be prepared from lanolin 10 parts, benzoated lard 20 parts, distilled water 24 parts, and ichthyol 6 parts.

There is also a demand for cooling preparations which more closely approximate to cream in consistence. These are required to cover large surfaces of the skin as a thin layer, without the application of mechanical power and evaporates, to keep the skin moist and suple. Particularly in these creams, largely used for toilet purposes, lanolin shows its great superiority over glycerin fats. A true "cold cream" is made by mixing together 10 parts of lanolin with 20 of benzoated lard and 60 parts of rose-water. The "Cremor refrigerans aquæ calcis" is made by substituting 60 parts of lime-water for the rose-water, that of plumbi subacet. by using an equal volume (60 parts) of the liquor.

The author recommends that these preparations should be made up in small quantities at a time, as they are not so constant as lanolin unguenta of the ordinary kind. The ointments naturally keep better than the creams, but even these are better freshly prepared.—*Monthly Magazine.*

READING NOTICES.

Hysterical Seizures.—I am happy to state that Peacock's Bromides has fully gratified my expectations in such cases as hysterical seizures, insomnia, general nervous irritability, either local or constitutional. A case of epilepsy is so far improving as to widen the intervals more and more between the attacks.

Hahnville, La. V. Lehman, M.D.

G. W. Watts, M.D., Auxvasse, Mo., says: "I find Celerina very useful in cases of old persons, whose digestive powers are failing, and in the convalescing period of those old persons from acute diseases, such as pneumonia, bronchitis, gastro-enteric troubles, etc. In two cases recently treated of this kind Celerina seemed to restore both the nervous and digestive system. Both of these cases were very old persons, they are now apparently well."

One of Reed & Carnick's extensive factories at Goshen, N. Y., was destroyed by fire on the 10th inst. This factory was devoted wholly to the production of their Soluble Food and Lacto-Preparata and contained extensive and valuable machinery. They had considerable stock of these Foods at their New York office, and consequently there will be no delay in filling orders. The factory will be at once rebuilt three times the size of the one burned, with machinery correspondingly enlarged.—*Dietetic Gazette.*

Succus Alterans.—Roche, Cornwall, Eng., March 20, 1889.—Sir :—I have used in my practice the preparation known as "Succus Alterans," and have much pleasure in bearing testimony to its great value.

For diseases having their origin in a syphilitic source, I believe the Succus to be the one reliable specific, for I may add that invariable success has been met with by me when prescribing the remedy in question, even after the failure of other alteratives. I shall continue to rely on the Succus in all cases I have indicated herein.

Yours truly,
(Signed) Wm. Rd. Goodfellow,
Member Royal College Surgeons, I. S. A.

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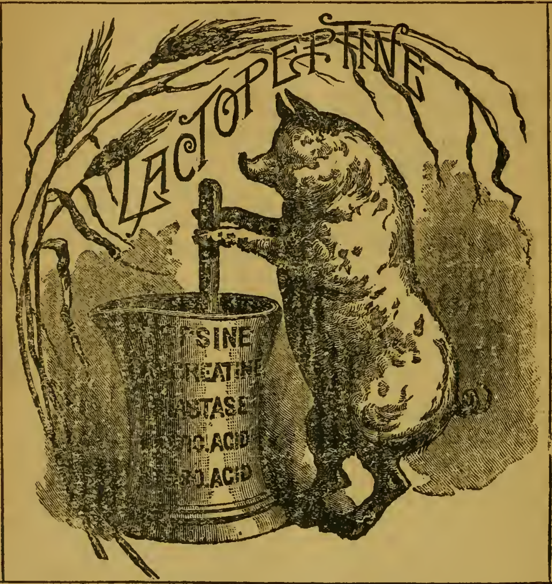

of all those ailments, in which deficient digestion is the direct or indirect cause of pathological conditions.

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ORIGINAL COMMUNICATIONS.

SYPHILITIC PARALYSIS OF THE FIFTH AND SEVENTH NERVES.

By William B. Pritchard, M.D.

Lecturer on Mental and Nervous Diseases, New York Polyclinic;
member of the New York Neurological Society; the
New York County Medical Society and the
North Carolina Medical Society.

The following case, which has been under observation at the department for Mental and Nervous Diseases of the New York Polyclinic for the past eight months, affords a peculiarly happy illustration of the application of a knowledge of anatomy and physiology to diagnosis. It possesses additional interest from its comparative rarity, and is not without value from other considerations, to which I shall call attention subsequently. The history is as follows:

L. C., æt 40; married. Has given birth to four living children, two of whom died in infancy, and has had two or more miscarriages.

Family history negative. No tubercular or cancerous diseases existed among her immediate ancestors. The patient has never suffered from serious illness. Her present condition began to develop last September (1889) with pain in the right lower jaw. She had never suffered from facial pain before, though subject, for several weeks, to headaches of nocturnal onset which were associated with insomnia. The pain developed rapidly and was intense in degree from the first. Thinking it a case of tooth-ache, two molars were extracted, with no benefit, her suffering becoming rather intensified. Her condition remained practically unchanged, except that the right upper jaw and right temporal region became involved, for about five weeks, when the pain abruptly ceased. Simultaneously with its dispppearance she noticed a numbness corresponding to the areas into which pain had previously extended. The numbness was followed almost immediately by a paralysis of the entire right side of the face. The angle of the mouth was drawn down, the facial expression became changed from a loss of the labial folds, the lower lid became everted (logophthalmos) and she lost the power of closing the right eye-lid, the eye remaining open even during sleep. The muscles of mastication were affected, as shown by a loss of power on the right side in eating and the lodgement of food in the cheek pouch. There has not been any pain since the onset of paralysis. In December last vision became affected, objects becoming misty; the eye began to look hazy and ulceration of the cornea commenced (neuro-paralytic ophthalmia). Vision became progressively worse until, at the time of her examination in February last, it was reduced to a faint perception of large objects only as dim shadows. This statement has reference, of course, only to the affected eye, the other (left) retaining vision unimpaired. The patient's "status" at the time of this examination was as follows: Right facial paralysis, involving the seventh nerve in all its branches, as described above. Hearing also markedly impaired in right ear. There was no involvement of the palate. The fifth nerve was affected, as shown by a loss of pain and tactile sense in the area which is supplied by this nerve. The masseter and temporal, supplied by the motor branch of the fifth, were also involved. Taste was impaired on the posterior surface of the tongue, and an additional evidence of the participation of the trigeminus existed in the corneal ulceration, presumably of trophic origin. The first nerve was intact; there being no anosmia or disturbance of the sense of smell. The movements of the eye-ball were perfect, and there was no ptosis, so the third nerve was not affected, a statement equally true of the fourth and sixth nerves. The case was evidently one of disease of the fifth and seventh nerves alone. Occurring as they did simultaneously, the symptoms of paralysis of these two nerves must have had a common origin. At what point was the lesion located? It was decided at once, and for several reasons, that the lesion could not be central or at the basal ganglia. The general disturbance had been too slight. The fifth and seventh nerves are not closely adjacent at the pons, and besides, they both have several roots of origin, springing from widely different localities. All the branches peripherally of both nerves were involved, and a lesion sufficiently large to produce this result must have also involved other structures, among them the third, fourth and sixth nerves, the crura cerebri and the pons. At least one or more of these regions would have been affected. It is a well-known clinical observation, due to the fact that the nerve-roots spring from at least four different localities, that central lesions, affecting the seventh nerve and resulting in paralysis, usually do not include the frontal and temporal branches. This is a recognized point of value in a differential diagnosis between a central and a peripheral lesion. In order to make assurance doubly sure, however the crucial test by the galvanic current for the reaction of the nerve involved was made. This resulted in a demonstration of the reversal of the normal palor formula of Erb, showing the reaction of degeneration present in peripheral paralysis, but absent in paralysis of central (cranial) origin. At what point, then, excluding the pons, could these two nerves be affected by a common disease? A knowledge of anatomy at once suggests the region of the Gasserian ganglion, for at this point and this point only, after leaving the pons, are the nerves in close or intimate proximity.

Having located the lesion, the next point to be determined is the character of the morbid process. Facial paralysis, or Bell's palsy, is, statistically, the most common of all peripheral paralyses. This is explained by the fact that the seventh nerve passes through a narrow bony canal where it cannot escape the effects of pressure from disease, such as caries of bone, tumors or inflammation from injury of the nerve or its sheath, to which its superficial and exposed position renders it peculiarly liable. There was no history or evidence in this case of injury, caries of bone, ear disease or unusual exposure, and our further progress towards a decision as to the etiology might have been delayed but for the remembrance of a curious clinical fact to the effect that syphilis, while rarely a cause of ordinary facial or seventh nerve paralysis, is always to be strongly suspected when the fifth nerve is involved. Upon investigation this case was found to be no exception. The history obtained of several miscarriages, two out of four children dead in infancy, and two living children exhibiting cachexiæ, with peculiar and almost characteristic headaches, occurring in the evening and preventing sleep, constitutes a symptom group decidedly suspicious, to say the least. Professor Landon Carter Gray is authority for the statement that "any cranial paralysis, in a patient under 35, preceded by headaches which are worse at night and which are associated with obstinate insomnia, both disappearing upon the onset of paralysis, is almost certainly of specific origin." While our patient does not conform exactly to this formula, there are enough points in common to make it applicable, and the lesion in this case was pronounced syphilitic and probably gummatous. That this was true has been partly confirmed by the results of treatment. Unfortunately for the patient, irreparable damage to vision had already occurred before the exact nature of the case was determined in all its details. The case had been considered one of simple neuralgia by the attending physician until after the development of paralysis, and it was not until she visited the Polyclinic dispensary that the syphilitic element was suspected and specific treatment inaugurated. This consisted of local mercurial innunctions and the iodide of potash internally, with the application of electricity to the affected region. Faradism was used first, the strength of the current being limited only by the capacity of the battery. After several weeks—the patient receiving treatment never oftener than twice a week, though daily seances would have been more beneficial—the interrupted galvanic current was substituted, the amount used varying from 10 to 5 milliampéres as sensation became more and more acute, or rather, less and less obtunded. The potassium iodide was given in the form of a saturated solution, which represents nearly a grain to the drop. The patient began at 10 drops, increasing it gradually, until she is now taking 85 drops three times a day, or about 250 grains daily. There has been, of course, no improvement in the eye, but the impairment of hearing has been almost entirely overcome, sensation has returned almost to the normal, and the loss of power in the paralyzed muscles, which was absolute, is now very markedly diminished.

355 W. 58th Street, New York.

EHRLICH'S URINARY TEST FOR TYPHOID FEVER.

By Thomas F. Wood, M.D., Wilmington, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

Ehrlich's test for typhoid fever first appeared in 1882 (*Zeitschrift für Klin. Med.* 1882, and *Deutsch Med. Woch. Berlin*, 1883, ix, 549, Index Medicus), attracting some general attention at first, but dropped by most experimenters because it was considered unsatisfactory, because it gave the same reäction in some other diseases, as typhoid fever. Even now, after much evidence has accumulated, it seems so incredible that in a complex pathological phenomenon like typhoid fever could be indicated in the secretions, that it has been discarded by many without due trial. My employment of the test I have confined to the diagnosis of typhoid fever, not ignoring the fact entirely that in phthisis, diabetes, some forms of albuminuria, and after the ingestion of some drugs, as iodol, sozoiodol, thymol, strychnine, and some others, that the reäction, or something very similar, has been obtained, but desiring to set on foot a study complete enough to determine for us, who have to deal with all diseases, whether this test would serve as an aid to diagnosis in fever, enabling us to differentiate between one fever and another, so that we would be enabled to say as early as in the first fortnight whether our case of fever was typhoid or not. This is the claim for Ehrlich's test, if applied as early as the fourth day, and not later than the fourteenth, that by a distinct color reäction by means of this diazo-compound we ascertain definitely what kind of fever it is we have to deal with. It need not concern us, then, in applying this test that it gives similar results in other diseases, because we are enabled in a measure to exclude them, and settle what is often a very anxious question to physician, patient and friends.

First as to the reagents:—Sulphanilic acid, the basis of this color reäction is prepared from anilin by heating it with fuming sulphuric acid, but it may be bought of any chemist. The test solution is made by diluting 3 to 4 drachms of hydrochloric acid with 10 ozs. water, and then saturating with sulphanilic acid. Just before using about a teaspoonful of a solution of sodium nitrite (1 part to 200 of water), are added. When the suspected urine and the chemical solution are mixed, the whole is alkalinzed with a few drops of ammonia, when the charcteristic color reäction takes place, and it is only necessary to observe the essential points to insure accuracy. The formulas are stated as follows :

Solution No. 1.

Sulphanilic acid	ʒ i.
Hydrochloric acid	gtt. 70
Distilled water	4 ozs.

Solution No. 2.

Nitrite sodium	1 gr.
Distilled water	4 ozs.

Solution No. 3.

Stronger ammonia	

In a graduated test-tube equal quanties of urine and solution No. 1 are mixed. To this is added one-fiftieth part of solution No. 2, and the whole is alkalinized with ammonia. Healthy urine gives a reaction varying in color from amber to bichromate yellow. In making use of the test it is best to secure a specimen of healthy urine in order to compare the reaction with that of urine from a suspected typhoid patient. If the urine is from a typhod patient it will give an intense scarlet red reaction, varying somewhat in intensity during the days included.

These essential points are a cherry red color imparted to the foam, and after standing some hours the precipitate has a dirty green color.* If the color is intensely red, the foam colored and the precipitate uncolored, we may have only the reaction for bilirubin. All the cases examined were in private practice, either of my own patients or those of other physicians. Cases were not selected, but were examined as sent me, and a note returned stating whether or not typhoid fever was suspected. In one family a young man well advanced in typhoid fever, with intense ataxic features, seen in the third week, gave no reaction. His urine was dense and highly colored, the typhoid poison was of the malignant sort, for surely there are degrees in the virulency of this poison. Many examinations gave no response, even in the urine drawn in the dying hour. His sister, who had come to nurse him, showed symptoms of the fever, and in the first week we had the distinct characteristic reaction, according exactly with the clinical features of the case. The mother of the young lady who came to nurse her complained of malaise after some weeks of nursing, and her urine gave the diazo-reaction perfectly, and so far in advance of the more serious stage of the fever, that she had sufficient warning to return to her home. This she did, and had a typical case of typhoid fever.

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*I have. in more than one instance, in cases of decided typhoid fever, recognized none of the green precipitate; so that this exception must be borne in mind. In another case, also, in which I got a characteristic reaction, and the surface of the white precipitate had a dirty greenish look. I afterwards detected indican, showing that there are some things not quite certain about this reaction.

My first two cases were undoubtedly genuine typhoid fever, one of them having all the typical symptoms except marked involvement of the nervous system, particularly distinguished by intestinal hæmorrhage in the third week; another having no ataxic symptoms but running a four week's course, terminatiug with purpura hæmorrhagica. The test was applied in both these cases, but there was no characteristic color reaction because the urine was not taken until too late in the disease, viz: after the fourteenth day.

The next was the case of a friend whom I had treated nineteen years previously for typhoid fever. Holding to the belief that one attack of typhoid exempted permanently. I was puzzled when I observed the case following right on after the typical course of typhoid. Urine was secured at about the end of the first week, and gave the blood red or cherry red reaction for typhoid fever.

Three cases of fever of about the same date, came next under observation, having no well-marked typhoid symptoms, but going on day by day unaffected by medicine, and causing great anxiety. Anxious parents must have a prognosis about their children's fevers, and when, as in some seasonal forms of fever, the wisest man could not forecast a case with any confidence, nor even make a satisfactory diagnosis, it is gratifying to be able to have a recourse to a chemical test, which has some approximation to accuracy. I secured the urine in these cases, and with confidence assured the friends that there was not an element of typhoid in them, an opinion which was confirmed by subsequent observation.

The next case was that of a young lady living in the country, who called me about the end of the first week of fever. Living at a distance it was very desirable that an opinion could be arrived at that would enable me to lay down treatment, and to say definitely what was the matter. Symptoms of typhoid fever were not marked, and nothing but probabilities could be suggested. An examination of the urine gave the characteristic reaction for typhoid fever, a diagnosis borne out by subsequent observation.

Another group of cases: My friend Dr. A. D. McDonald submitted some urine from two patients. The first I could say at once was from a typhoid patient, the second I reported negatively upon, but subsequent examinations as to one of them revealed the intensest reaction of any urine I had tested.

In one case only (at this date only one in 20) was there a complete failure of the reaction, in a clearly defined case of typhoid fever. This case answered to the typical clinical characteristics of the disease, but gave no diazo-reaction; urobilin was abundant at every examination, which does not interfere with the test. I am at a loss to state why there should be one failure if the reaction depends upon a typho-toxin, or a ptomaïne, presuming that such a substance would be a constant factor. It is possible, though, that the prodrome of the fever may escape observation, and the patient be past the period of the critical manifestation before he takes to bed, but our duty is to put these examinations to the severest tests; we are not after an astonishing novelty, but to settle the practical bearing of Ehrlich's discovery.

The testimony is accumulating, and we will soon know the facts:

Dr. Elbridge Culter says of it in the *Boston Medical and Surgical Journal* (December 26th, 1889):

"Writers differ as to the worth of this reaction for diagnostic purposes in typhoid as well as about its prognostic value. On the whole the weight of evidence is rather in its favor and is perhaps perhaps best summed up by Strümpell in the last edition of his text-book, in which he says 'the urine (in typhoid fever) gives almost without exception the Ehrlich diazo-reaction at the height of the disease.' How great its diagnostic value is I have not been able to determine, having made no comparative test. My experience thus far leads me to consider it strong corrobative evidence of typhoid.

The reaction was sought for in every case but three, fifty-three times. It was characteristic or marked forty-nine times. In four cases it was absent. Two of these were very mild cases in young persons and the urine was not examined for it every twenty-four hours. In the third case, a mild one, the patient was sixty-seven years old. The fourth case was convalescent when first seen. In several cases where recrudescence occurred the reaction was found at this time in a moderate degree. In one of the cases of relapse the reaction was extreme, in the others it was moderate."

The latest evidence is from Dr. L. Rütimeyer, in *Correspondenz-Blatt für Schweizer Aerzte* (May 15th, 1890, *Journal American Medical Association*, July 12th, 1890). Some of his conclusions are, that in cases of suspected typhoid if the reaction is present we probably have to do with that condition; if it is absent during the first and second week, we have a very mild case or some other disease. Further, that the amount of reaction does not depend on the intensity of the febrile process. That the disappearance of the reaction in the second and third week ordinarily means an early convalescence or a light course of the disease. Strong and persistent reaction is of no value in determining the probable ending. A recurrence of the disease again shows the reaction, even when it has disappeared.

NOTES ON CASES SINCE ABOVE WAS WRITTEN.

An opportunity was afforded in one case of traumatic tetanus, to test the reaction, but it was negative.

From my note-books I have selected fourteen cases, some of my own and some from medical friends who have submitted specimens from suspected fevers. I am thus enabled to add additional information. In one case of undoubted typhoid fever the reaction was characteristic, but lacking the dull greenish pellicle on the surface of the white precipitate.

In two cases of continued fever in which the attending physicians were in doubt, there was no decided reaction except for bilirubin, but on the other hand there were no characteristic rose-colored spots, no ataxic symptoms, but only indications of mild typhoid.

In one case the reaction on the eighteenth day of fever was characteristic, although the urine was so highly ammoniacal as to necessitate neutralization with acetic acid.

In another case, where the reaction was decided at an early day of fever, the case terminating abruptly by convalescence. Indican was found to be present in the urine, with what chemical effect I do not know.

My conclusions are that there is—

(1) A very considerable degree of reliance to be placed in Ehrlich's test.

(2) It can be said only in a general way that we get the dark dirty green precipitate in typhoid, and its absence cannot always be taken negatively.

(3) Clinical features must always be allowed to have their weight in pronouncing upon the result of any given test, but the test does not vary through nearly so broad a range as the differential features in typhoid and simple continued fevers.

[Note.—Only so much of what was a lecture on the subject is given in the above notes, the writer omitting minute detail of cases as unnecessary. Samples of the ingredients necessary for testing urine were distributed at the meeting and since, and the writer will send to any subscriber enough of the chemicals to make a number of trials, on application to him. All he asks is that those who make the tests will make notes as to the day of the disease the urine was examined, if the color reaction was the characteristic red, extending to the foam, and if there was a dull green precipitate. Several reports have come in, but not sufficiently prolonged trial and comparison of cases has been made to answer the requirements of exact science.]

A Formula for Insect Bites.—One of the very best applications for the bites of mosquitoes and fleas, also for other eruptions attended with intense itchings, is: Menthol in alcohol, one part in ten. This is very cooling and immediately effectual. It is also an excellent lotion for application to the forehead and temples in headache, often at once subduing the same.—*Cin. Lancet-Clinic.*

REPORT OF THE CHAIRMAN OF THE SECTION OF MATERIA MEDICA.

By D. G. Caldwell, M.D., Tulen, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

SULPHONAL.

At the last meeting of this Society Drs. Young and Stevenson, in their report, treated of this new hypnotic at some length. They concluded with these words: "Sulphonal is being investigated by the best men of the world. They seem to be anxious to find merit in it, and are giving it a fair trial; on its worth it must stand or fall, its future time alone can reveal."

Time does not seem to be sustaining all the first claims for this new drug. In an editorial in a recent number of the *Therapeutic Gazette* a note-warning is sounded. "It almost seems that the fate of sulphonal was to be a repetition of what has been so often noticed in new drugs; at first received with universal acclamation to finally become more and more distrusted, and at last discarded as useless. We do not maintain that the latter is to be the fate of sulphonal, but the cases where its results are unsatisfactory, or where its effect is even dangerous, are accumulating only too rapidly."

Dr. Monthyel has recently published a number of observations which are extremely unfavorable to sulphonal, and his results have been recently confirmed by Prof. Mariet *Deutsche Medicinische Wochenschrift*, October 3, 1889). The latter has published an exhaustive essay upon the action of sulphonal, and he found that in doses of 30 grains in only 33 per cent. was the action at all satisfactory; upon the second, third or fourth day, tonic symptoms appeared, so that the use of the remedy had to be suspended; this state of affairs was especially marked when doses of 45 to 60 grains were given to produce sleep. An especially annoying feature in the action of this drug appears to be that, while in some cases large doses may be taken without any effect, in others small doses produce the most violent toxic symptoms; while again even those cases which in some instances have proved themselves unaffected by large doses and in whom it may have previously produced satisfactory sleep, suddenly will be violently poisoned by doses which they had taken previously with impunity. Exhaustion, diarrhœa, vomiting and collapse follow doses which had been previously almost inactive. In one instance a patient was affected with sudden and violent congestion of the lungs, a fact which is confirmed by experimental observation that the lungs and other viscera are in a state of violent congestion after poisoning with sulphonal. As it is Dr. Mariet no longer attempts to give doses of 60 grains two days in succession, since he is confident that doses which are capable of producing sleep will nearly always produce symptoms of intoxication if persisted in.

Jastrowitz has called attention to the cumulative action of sulphonal, referring to the necessity of interrupting the use of this drug so as to allow for the elimination of successive doses. He also has noticed unfavorable symptoms following the use of sulphonal, such as muscular weakness, disturbance of sight, ringing in the ears and collapse.

Cases of poisoning from small doses of sulphonal are published in the *Medical News*, August 10th, 1889, when there was a fatal issue, and in the *Medical Press*, September 11, 1889, when delirium was produced.

It has been noticed that sulphonal disturbs the cerebral cortical functions producing ataxic movements similar to those produced by the removal of the motor portions of the cerebral cortex.

In the *Lancet*, November, 1889, (*Therapeutic Gazette*, January, 1890), Dr. R. Percy Smith publishes five different cases in which there was temporary loss of power in the lower extremities as a consequence of the administration of sulphonal, 30 grains being the dose usually employed. From a study of these cases Dr. Smith concludes that the loss of power was not due merely to giddiness, but to some interference, probably with the cortical functions. In all the cases the suspension of the administration of the drug was attended with the immediate disappearance of the unpleasant symptoms.

Dr. Knoblauch (*Therapeutische Monatshefte*), November, 1889), the assistant of the neurological clinic in Heidelberg, in an address given before the neurological section of the Association of Naturalists, held in Heidelberg, goes so far as to agree with the statement of Dr. Monthyel that sulphonal is not a remedy, but a poison, basing his conclusions on the facts observed by himself and others, that in many cases the hypnotic action of sulphonal persists until the following day; that it cannot be evoked with certainty in any given time; that the doses which are sufficient to produce sleep vary in different individuals, and even in the same individual at different times; that in many cases marked symptoms of poisoning occur even with doses which are too small to produce sleep.

At the last annual meeting of the New York Medical Association Dr. W. H. Flint, of New York (the *Therapeutic Gazette*, January, 1890), who seems to have studied this drug more thoroughly than any one else in this country, reiterates his favorable conclusions, saying that sulphonal, even in single doses, 20 to 30 grains, was in the main a safe and reliable hypnotic, free from unpleasant concomitant effects, and usually from all undesirable sequelæ.

Dr. Flint thought sulphonal was chiefly valuable in nervous insomnia, in some forms of insanity, notably in acute maniacal conditions, in acute sthenic febrile conditions, the opium habit, in conditions of gastric irritability, at least temporarily in neurasthenia. The effects of the remedy had generally been better in his experience when the patients were strong and plethoric, and in these cases the after effects were most frequently absent.

Sulphonal was contraindicated because of its comparative uselessness in insomnia from pain, cardiac dyspnœa, gastrectasis and congested stomach.

The causes of this failure in the presence of pain, cough and dyspnœa seemed to be its slight narcotic action, and in gastrectasis, chronic gastritis and gastric congestion its slow solubility. It seemed to be contraindicated on account of its possible hurtful effects in great physical prostration, in acute melancholia and in insanity after abortion and labor, and perhaps in schlerosis and in angina pectoris. Clinically, toxic symptoms did not generally follow the use of sulphonal in adult cases until 30 grains or more had been given at one dose or in doses quickly succeeding each other. It must be conceded, however, that small doses did sometimes act unfavorably, owing to individual idiosyncrasies. Dr. Flint thinks that there is no need for alarm at the sensational statements of some authors who have used too large doses, or have used the drug when it was contraindicated. The dose should be carefully adjusted to the requirements and peculiarities of each case, and since the effects of a full dose was often felt on the second or third night after its administration, it was well to decrease the dose on these nights whenever the drug must be given uninterruptedly for days or weeks. He had not yet seen evidence that the sulphonal habit existed, nor had he seen any cachexia or dyscrasia which could be fairly attributed to the drug. Favorable effects had resulted in about 80 per cent. of his cases. Children took it readily and tolerated it well.

Reviewing his own experience and that of others, he concluded that the physiological action of sulphonal had not yet been satisfactorily established.

CHLORALAMIDE OR CHLORALFORMAMIDE.

This is the title of one of our new drugs which has lately been added to our already long list of hypnotics. This is a discovery of Prof. Von Menrig. "It is an addition-product of chloral anhydride ($\mathrm{CCl^3CHO}$) and formamide ($\mathrm{CHONH^2}$), and its formula is $\mathrm{CCl^3CHOHNHCHO}$. It occurs in colorless crystals, soluble in 9 quarts of water and 1½ parts of alcohol (96 per cent.) The flavor is mild, feebly bitter and not at all caustic." (*Year-Book of Treatment*, 1890, p. 301.) The aqueous solution, when heated to 60° C., decomposes into chloral hydrate and formamide. This decomposition is brought about also by alkalies, while dilute acids are without influence.

The first experiments, such as Drs. Rabow, Hagen, Hüfler, Reichman, Peiper, Kny, Hageman and Strauss are all pretty well agreed as to the favorable action of chloralamide as a hypnotic in doses of 30 to 45 grains, especially efficacious in insomnia due to nervousness and to most all cases of sleeplessness which are not due to pain.

The dose is a little larger than that of chloral hydrate, and takes a little longer to take effect, requiring on an average one-half hour, sleep lasting from six to eight hours, being without any unpleasant after-effects. "In Prof. Strümpell's clinic 30 grains were generally found sufficient, especially in women, although occasionally 45 grs. were required, given in capsule or dissolved in water. No disagreeable effect on the heart, respiration, temperature, digestion or kidneys were ever noticed." (*Therapeutic Gazette*, September, 1889.)

The most careful study of the action of chloralamide is that of Dr. Eugene Kny, of Strausburg, who has tested its action on man, having administered it one hundred times in 31 cases. (*Hand-Book of Treatment*, 1890, p. 301.)

The dose varied from 1½ to 4 grains (22 to 62 grains). Speaking generally, it is suitable to the same class of cases of insomnia as chloral. Chloralamide is so unirritating that a 10 per cent. solution causes no irritation when applied inside the eye-lid of a rabbit, and it can be taken by patient's in powder directly, or in wine, without risk of offending or disturbing a sensitive stomach. The most striking advantage of chloralamide is this: that even in deep narcosis the circulation suffers no embarrassment, either central or peripheral.

Dr. Kny published his experiments in the *Therapeutische Monatshefte*, August, 1889, and quoted in the *Therapeutic Gazette*, October, 1889, as to the effect of chloralamide on the circulation.

From experiments made on rabbits, which had received 24 to 30 grains of chloralamide by stomach, the author determined that in comparison to chloral the influence of chloralamide on the circulation is insignificant. The effects of chloral introduced into the stomach was to reduce the blood-pressure in the rabbit from 50 to 80 millimeters below the level before the experiment; while chloralamide, on the other hand, only produced a fall of 17 millimeters, or not more than might be expected to occur in normal sleep.

The action of chloralamide is explained by Dr. Kny as due to the fact that from the free alkali of the circulating blood the chloralamide is gradually split up into chloral and formamide, and thus but small quantities of chloral become effective at any one time. This statement, the author informs us, is confirmed by the fact that he was able to detect large amounts of uro-chloralic acid in the urine of a dog which had taken 180 grains of chloralamide.

A point which seems to be much in favor of the use of chloralamide is that formamide acts as a stimulant to the vaso-motor centre in the medulla, and thus tends to elevate blood-pressure. Dr. Kny prefers chloralamide to sulphonal principally upon the testimony of the patients themselves, and upon the fact that it is much more rapid in its action.

If the claims which are set forth for this new drug, as to its pleasant effect on the stomach, its activity as a hypnotic and its freedom from danger on the circulation are confirmed, it is certainly a valuable addition to our Materia Medica.

URAL OR URALIUM.

According to the *Druggist's Circular and Chemical Gazette*, July, 1889, Ural is the name of a new hypnotic described by Poppi. This is a combination of chloral hydrate and urethan. It is said to bring on a quiet, long-continued slumber, and to act more speedily than any other hypnotic. The usual claim is also made that it is "without any unpleasant after-effects." This is qualified by the admission that it lowers blood-pressure in excessive doses. The editor adds that the action of chloral is well-known, and it is not likely that this mixture or any other hypnotic will fill the long-felt want as to safety. Ural occurs in the form of bitter crystals, soluble in alcohol, but slightly so in water. Dr. Poppi, after farther researches, communicates his results to the *Pharmaceutishe Post*, July, 1889. He claims that ural is less dangerous than chloral, from the fact that it reduces temperature to a less degree, and has scarcely any effect on the vascular system. Dr. Poppi himself has taken 15 to 30 grains in the evening, his pulse being increased only from 75 to 80 beats in the minute. There was marked somnolence, but the duration of the sleep produced was no longer than usual, and on awaking there was a slight sensation of fatigue, which rapidly disappeared. The author claims to have given ural to a large number of cases, inebriates, phthisical cases, and cases of heart disease, and various affections of the nervous system, in doses of 30 to 45 grains, and has almost invariably succeeded in producing sleep; and when repeated on a number of different occasions, the blood-pressure was not reduced either in healthy individuals, or in patients to whom it was given to overcome insomnia.

Ural does not seem to have been used very extensively up to this time, the writer has seen no reports from any American authors.

SOMNAL.

Somnal is composed of chloral, alcohol and urethan. The formula being given as $C_7H_{12}Cl_3O_3N$. It differs from its predecessor, chloral-urethan, in containing a larger proportion of carbon and hydrogen. (*Druggist's Circular and Chemical Gazette*, December, 1889.)

It has been used in doses of 30 grains in the form of a solution sweetened with syrup. It is claimed by the author (Dr. Radlauer) to exercise no unfavorable action upon the pulse respiration or temperature. But this statement is not borne out by clinical tests. Such experimenters as Professors Leibreich and Fübringer have found that somnal exerts a hypnotic action in about 30 per cent. of cases, and that it has a very undesirable, and occasionally even dangerous, secondary action on the heart.

From the lights we have before us we conclude that somnal does not fulfill the requirements of a good hypnotic which should possess certainty, promptitude and freedom from unpleasant after-effects.

METHYLACETANILIDE.

This new anodyne was first called attention to in March, 1889, by Drs. Dujardin-Beaumetz and Bardet, and was called "ortho-methylacetanilide." This nomenclature was called in question by M. Giraud, who says its true designation is methylacetanilide. In a recent lecture of Professor Dujardin-Beaumetz on the new analgesics (*Therapeutic Gazette*, December, 1889), he says: "We had some difficulty at first in being settled about the chemical substance with which we were experimenting; but after the remarks of Giraud following our communication, it became certain that we had to do with methylacetanilide, which was obtained in 1874 by Hoffman."

Acetanilide furnishes four methyl derivatives which are, methylacetanilide and ortho-, meta-, and para-acetanilide. Methylacetanilide, which has the formula $C_9H_{11}NO$, results from the action of chloride of acetyl on mono-methyl-aniline. It presents itself in the form of beautiful colorless crystals, little soluble in water, but very soluble in alcohol and even in dilute spirit; has neither taste nor smell. This drug, like the other derivatives of the aromatic series, is anti-septic, anti-thermic and analgesic. It is mostly used for this latter property; it takes its empirical name *exalgine* from this quality.

As to the clinical and therapeutic application of exalgine, Dr. Gaudineau sums up his conclusions as follows (*Therapeutic Gazette*, November, 1889):

(1) Exalgine, given in doses of from 3 to 6 grains, if the subject is non-febrile, is without effect ordinarily.

(2) Doses of 4 to 6 or 12 grains modify considerably the pain experienced by the patient suffering from neuralgia or any painful affection.

(3) Exalgine is poisonous when administered in doses equivalent to 7 grains for every two pounds of body weight, so that in ordinary therapeutic doses it may be stated to be absolutely inoffensive, and that this new remedy is less dangerous than aconitine, digitaline and all the alkaloids frequently given to patients.

(4) The therapeutic dose varies from 4 to 12 grains administered in the twenty-four hours.

(5) In these doses exalgine has never produced any trouble other than slight vertigo and ringing in the ears.

(6) Exalgine is especially valuable from the fact that it does not irritate the stomach and that the doses required are small.

The analgesic effects of exalgine are especially evident in the treatment of neuralgia, and to a less reliable degree in the treatment of pains of a rheumatic character.

Dr. Bardet, of Paris, at the International Congress of Therapeutics, read statistics from the Cochin Hospital, where exalgine was administered in 75 cases. These showed the drug to be especially beneficial in dental and congestive neuralgias and congestive hemicrania. At the same meeting Dr. Desnos, of Paris, said that he preferred exalgine to antipyrine. Yet he admitted that exalgine was apt to cause vertigo, a sort of drunkenness like quinine, an opinion which Dr. Beaumetz confirmed, stating that the symptoms have no dangerous sequelæ, eruptions and cyanosis are not to be found.

Dr. Beaumetz in his second lecture on "New Therapeutic Agencies" (*Therapeutic Gazette*, December, 1889), delivered in Cochin Hospital, says: "Exalgine has shown itself to be a powerful analgesic, and in the numerous cases where we have employed it it has furnished us remarkable results, often superior to those of antipyrine and acetanilide. I possess two or three very demonstrative observations in this regard. I have seen methylacetanilide subdue pains which had resisted all other analgesics, and this in doses which had not exceeded 50 to 60 centigrams in twenty-four hours. It is this elective action of methylacetanilide on pain which has given the name of exalgine to this substance, but its therapeutic effects go farther, and show an action quite selective on the rachidian bulb. Hence it is a medicament which is applicable to polyuria like antipyrine. Lastly, it combats convulsive symptoms, and perhaps epilepsy."

In comparing together the new analgesic antithermic agents in the treatment of affections of the nervous system Dr. Dujardin-Beaumetz says: "Of all the antithermic analgesics known, that which occupies the first rank is antipyrine, and for the following reasons: It is the most soluble, perhaps the only one soluble, in all proportions in water, which renders its administration and absorption very easy; moreover, it is but little tonic.

After antipyrine, and almost at an equal rank from an analgesic point of view, I place methylacetanilide, and if this methyl compound were more soluble, it would certainly deserve to occupy the first place, and this because it is more active, and because under its influence we have never seen an eruption appear. After exalgine I would place phenacetine, whose great insolubility gives it a rank inferior to that of antipyrine and methylacetanilide. I put in the last place acetanilide, not because this medicament is less powerful than the others, quite the contrary, but because it sometimes produces a cyanosis which frightens the patient and his attendants."

The favorite formulæ of Dr. Dujardin-Beaumetz for administering exalgine are—

℞.—Exalgine	2.50
Essence peppermint	10
Linden water	120
Syrup of orange flowers	30

If this be not agreeable, then—

℞.—Exalgine	2.50
Tincture of orange-peel	1
Water	120
Syrup of bitter orange	30

A teaspoonful of either of the above potions contains 25 centigrammes (4 grains) of exalgine, and you will prescribe a teaspoonful morning and evening. The tincture and the alcoholate serve only to dissolve the exalgine, and this is the first thing to do in the preparation, before adding the other ingredients.

METHACETIN.

This is a new antipyretic and one of the most recent additions to our rapidly growing list of synthetic medicinal compounds. This is a powder consisting of reddish scales without odor and slightly bitter to the taste; slightly soluble in water, but very soluble in alcohol. This is the methyl homologue of phenacetin.

Methacetin is $C^6H^4OCH^3NHC^2H^3O$, and phenacetin is $C_6H_4 OC^2H^5 NHC^2H^3O$. It seems that this is a more soluble body than phenacetin, with which it agrees in physiological action.

It may be given to children to reduce pyrexia in doses of 20 to 30 centigrammes. From experiments on animals it has been found that methacetin reduces the temperature three, four or five degrees within a few hours after its administration. Dr. Edward N. Whittier, of Boston, in writing of antipyretics in the *Boston Medical and Surgical Journal*, says that methacetin is an efficient antipyretic, causing a fall of three to five degrees in a few hours, and frequently a profuse perspiration. It may produce collapse, but so far no cases of vomiting, tinnitus aurium or erythema have been reported. It is markedly poisonous to rabbits, doses of 45 grains having produced convulsions and death. Dr. Whittier concludes: "Experience of methacetin is still limited, but its poisonous action on animals and its tendency to produce collapse in man do not recommend it. (N. C. MED. JOURNAL, November, 1889.)

GUAFINE—A NEW ANTIPYRETIC.

Dr. L. Bertrand (*Medical News*, August, 1889, from *Bolletino Farmaceutico*, July, 1889) gives the results of his experiments with guafine. It is a resin which Bertrand extracted from the leaves of *Psidium pyriferom*, a tree belonging to the Myetaceæ, and indigenous to the East Indies and South America. The leaves contain tannin and oxalate of lime, and only 2 per cent. of the resin. The results of numerous experiments proved that guafine was of considerable value in intermittent fevers. (From the *Year-Book of Treatment*, 1890.)

BENZANILIDE.

Benzanilide (*Year-Book of Treatment*, 1890) is a white crystaline powder, sparingly soluble in water, soluble in alcohol. Kahn has employed this drug in a great number of febrile diseases in children. It is easily taken and well borne. As Kahn and Hepp have shown, benzanilide is an energetic antipyretic, acting similarly to acetanilide. The doses are 1 to 2 decigrams (1½ to 3 grains) for children under 3 years of age, up to 9 years for older children. The maximum dose in twenty-four hours was 50 grains. Roughly speaking, the dose may be said to be twice that of acetanilide.

HYDROXLAMINE NH_2OH.

Also called oxyammonia. This is a base in which one atom of hydrogen of ammonia is replaced by the hydroxyl group. Like ammonia, it has the peculiarity of readily entering into combination with hydrochloric acid, forming the hydrochlorate (NH_2OHHCl), which is the most important salt. This occurs in colorless crystals freely soluble in water, glycerine and alcohol.

Hydroxlamine was discovered by the chemist Lossen in 1865, but not until Dr. Bintz in 1888 studied and reported the physiological effects of this drug on the lower animals was much attention given to it. In these experiments the physiological action of hydroxlamine so closely resembled that of pyrogallic acid, chrysarobin, anarobin and allied substances which have been found serviceable in the treatment of psoriasis, that he suggested its use in skin affections. These suggestions led to trials of the drug by German dermatologists.

Dr. John Faby, as referred to in the *Therapeutic Gazette*, September, 1889, found that a 10 per cent. solution is excessively irritant to almost all skins, causing intense redness, violent burning, and not rarely blistering the part. Some skins will not bear a 1 per cent. solution, so that it is not safe in a new case to begin with a stronger application. The solution should be gradually increased and be applied at intervals of one, two or three days, according to its effects. In the cases studied by Faby the results were most favorable. One very severe case of chronic psoriasis which had resisted other treatment, had the ordinary solution of pyrogallic acid applied to one arm, to the other the solution of hydroxlamine, at first the arm treated with the acid appeared to improve most rapidly, but in a few days the other arm overtook and passed it on the road to recovery, and was well sometime before the other.

Others have reported good results from the remedy in lupus, herpes, tonsurans and parasitic sycosis. The great advantage claimed for this drug over that of pyrogallic acid and chrysarobin in dermatological practice is that it does not stain the skin and is free from dyeing.

SOLVINE.

This is the name given a new product which is produced by mixing sulphuric acid and castor-oil. The excess of acid is removed, the residue dissolved in water and the precipitate treated with a mineral acid. The liquid which results is said to be of a clear yellow color and oleaginous consistence. It is claimed that this substance possesses marked solvent properties, passing readily through animal and vegetable membranes.

Toxic symptoms have been reported to have followed on application of napthol and solvine to the mucous membrane, and as solvine is known to dissolve red blood globules when injected hypodermically, it must be used with caution even as a component part of ointments for the skin until further and more careful clinical studies are made with it.

COCILLANA.

This plant has lately been called attention to as an expectorant, tonic and laxative. Dr. H. H. Rusby, in 1888, described a drug which he had discovered to be in common use in Bolivia, of which country the plant is a native. It appeared to possess emetic, cathartic and expectorant properties very similar to ipecac. Dr. David H. Stewart, in *Philadelphia Medical News*, August, 1889, published his results in 40 cases in which cocillana was prescribed. these comprise 10 of acute, 1 of sub-acute and 19 of chronic bronchitis, 5 of broncho-pneumonia and 5 of phthisis. His conclusions, in brief, were that, in acute bronchitis, the drug had but little effect on the disease, but in chronic bronchitis the results were more satisfactory, 5 cases being cured, while 3 were decidedly and 2 moderately benefited. All the cases of broncho-pneumonia were improved as regards cough and expectoration, while the cases of phthisis appeared to be uninfluenced by cocillana. In all cases treated Dr. Stewart claimed that when cough was not removed it was lessened, while expetoration was either diminished in amount or frequency and became less difficult.

In December, 1889, Dr. R. W. Wilcox delivered before the New York Academy of Medicine an address on cocillana (published in the *Boston Medical and Surgical Journal*, January, 1890). In his experiments Dr. Wilcox used the concentrated tincture, though he adds that he believes the fluid extract in doses of 5 to 25 ♏. would be preferable on account of the absence of alcohol. His experiments, like those of Dr. Stewart's, proved that the field of usefulness of cocillana was in sub-acute and chronic dry bronchitis. Dr. Wilcox stated that its expectorant effect was more sure than either apomorphia or ipecac in liquefying bronchial mucus, that it increases the appetite, and that it acted, to some extent, as a laxative, all of which rendered it a most useful remedy. In senile bronchitis Dr. Wilcox would use with caution, particularly in cases of calcified cartilage and when there is a tendency to bronchorrhœa, because cocillana is not a stimulant to the respiratory centre. Dr. Rusby. who was present at this meeting, added to the valuable testimony of Dr. Wilcox in favor of this new drug. In speaking of its use in bronchitis, Dr. Rusby stated that one of its most important offices he believed to be that of promoting the appetite. This was among its earliest and most marked effects, and he believed that its use in doses of 10 to 15 ♏. an hour before meals was plainly indicated independently for this purpose.

Should further experience substantiate what is claimed for this new remedy, particularly its pleasant effect on the alimentary canal in contrast to that of most of our expectorant remedies, most of which are more or less nauseating and destructive of the appetite, we may well congratulate ourselves on such a valuable addition to our medical armamentarium.

LOCAL TREATMENT OF HERPES ZOSTER (DUHRING).—My ordinary treatment is to envelop the parts as tightly as possible with a linen or cotton cloth bandage, the inner surface of which has been dusted with starch, and then laid on so that there is a little layer of starch next to the body; then the cloth is sewn on tightly, making a perfectly skin-fitting bandage. The relief is prodigious. Private patients come back the next day, expressing their perfect satisfaction. I never touch the dressing, leaving it on for a week. This is my sole local treatment, and has been for a great number of years, and I don't ask for anything better.—*Columbus Medical Journal.*

A CASE OF EXTRAUTERINE PREGNANCY OF FIVE YEARS STANDING.

By W. S. Anderson, M.D., Wilson, N. C.

(Read before the Medical Society of North Carolina at Oxford, May 27th, 1890.

About November 1st, 1889, I was called to see Laura Harris (colored), aged 35 years, who informed me that she had from time to time passed small pieces of bone from her urethra. Upon further inquiry, she said that five years before she came to my office and that I told her she was pregnant, but had given birth to no child since. I made a digital examination per vaginam and rectum, and found what I thought to be a case of extrauterine pregnancy of long-standing. I had forgotten the case, but on my return home I examined my books and found that on the 17th of October, 1884, she visited my office, and that I made a digital examination, but had no other record of the case.

She had suffered a great deal during the years she had carried the fœtus, and was very weak and emaciated. I put her at once on a good nutritious diet and tonics to prepare her for an operation, which I performed on the 21st of October, 1889, assisted by Drs. R. W. King, J. K. Ruffin and my brother, Dr. Albert Anderson.

For the first few visits I made her previous to the operation the mass pressed so low down I thought it would be better to operate through the vagina, but when the time came for the operation it was so high up it could not be reached through the vagina, and I performed laparotomy, which was done in the usual way.

After passing into the abdominal cavity it was found that the sack holding the dead fœtus was very much thickened with extensive adhesions, except one small place on the upper surface corresponding with the abdominal incision. Finding it impossible to remove the whole mass, on account of the adhesions, we decided to puncture the sack, remove its contents and leave it to nature, assisted by the strictest antiseptic treatment. In closing the abdominal wound we stitched the sack to the edges of the abdominal incision as best we could, put in a drainage-tube at the lower angle, and closed the wound and dressed it with iodoform gauze. She

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Respiratory diseases are always endemic, and, at certain seasons of the year, epidemic. Many a successful patent-medicine man owes his fortune to a happy or unhappy combination of cough remedies and not a small portion of the regular physician's practice is made up of prescribing "cough mixtures." How many of those generally in use accomplish much more than to disturb the digestion or nauseate the patient we leave it to the experience of all fair-minded physicians to determine. It is certain many of them must [illegible] inefficient.

It was but natural therefore, that a wide trial should have been made of modern additions to the materia medica in this troublesome class of affections, and of those proving themselves of value, the following deserve special mention, and need only a wider knowledge of their merits to make their use very general.

A few facts regarding these drugs, which were introduced by us, may interest those desiring to employ them, and we will be pleased to send those desiring more complete information working bulletins fully descriptive of their history and botanical origin, habitat, preparations and therapeutic application, containing clinical reports from private and hospital practice.

NARAGAMIA ALATA AND COCILLANA. Among new drugs recently investigated these two promise to be very satisfactory additions to the materia medica.

The evidence thus far obtained from clinical experience would indicate that these remedies are likely to prove important expectorants and respiratory stimulants. In the spasmodic cough of acute bronchitis, in the hacking cough of phthisis, and wherever there is marked interference with the respiratory function through accumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient.

GRINDELIA ROBUSTA is indigenous to California. Of it we make the following preparations:

Fluid extract of leaves and flowering tops; dose, ½ to 1 fluidrachm (2 to 4 C.c.).

Solid extract, dose, 5 to 18 grains (.33 to 1.[illegible] grm.).

Elixir grindelia robusta; each fluidounce represents 2 drachms of grindelia robusta; dose 2 to 4 fluidrachms (8 to 15 C.c.).

Pil. extract grindelia robusta, 3 grains, sugar- or gelatin-coated; dose, 1 to 4 pills.

QUEBRACHO is an Argentinian drug. The bark contains the active medicinal principle. The most eligible form for its administration is the fluid extract. In spasmodic asthma it has often brought about speedy relief from the paroxysms.

MYRTUS CHEKAN is an evergreen shrub indigenous to the central provinces of Chili. Our preparation of Chekan is a fluid extract made by maintaining the drug in a seventy-five per cent. alcoholic menstruum and submitting it to hydraulic pressure. The dose is one to three fluidrachms.

YERBA SANTA is found throughout California and on the Pacific coast. The leaves are the part used. We supply the following preparations of the drug.

Fluid extract of the leaf; dose, ¼ to 1 fluidrachm (1 to 4 C.c.).

Fluid yerba santa aromatic, for making syrup yerba santa aromatic; dose, 15 to 60 minims (1 to 4 C.c.).

Solid extract; dose, 3 to 12 grains (.2 to .8 grm.)

Syrup yerba santa comp.; dose, 1 to 4 fluidrachms (4 to 16 C.c.).

Glycerole yerbine comp.; dose, 1 to 3 fluidrachms (4 to 12 C.c.).

Glycerole yerba santa; dose, 1 to 2 fluidrachms (4 to 8 C.c.).

Lozenges yerba santa comp.; dose, 1 to 2 every three hours.

Pil. yerba santa ext., 3 grs.; dose, 1 to 2

Yerba santa with malt extract; dose, 2 to 4 fluidrachms (8 to 16 C.c.).

Not the least valuable of the properties of this drug—and it is widely used for its demulcent and expectorant qualities—is its power to disguise the taste of quinine. In the form of syrup it is now regarded as the best vehicle for this purpose.

LIPPIA MEXICANA is a creeping evergreen shrub. Its habitat is Southern Mexico. The parts used medicinally are the leaves and stalks

The tincture of Lippia Mexicana appears to be the pharmaceutical preparation best adapted to produce the full therapeutic effect of the drug. To judge from the analytical results, it contains all the desirable constituents as nearly as possible in the proportions in which they are associated in the fresh drug. The tincture is given in the dose of half a drachm to one drachm, repeated every three or four hours, according to the requirements of the case.

Among formulæ we manufacture, we may also mention **ANODYNE PINE EXPECTORANT** and **BRONCHIAL SEDATIVE** preparations which are agreeably tasting and combine expectorants and respiratory sedatives already well known to the medical profession.

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rallied very promptly from the anæsthesia, and expressed herself as feeling more comfortable than for a long while.

My brother and myself visited her together for several days, and one or the other of us for twenty-three days, and, notwithstanding the fistulous opening into the bladder, through which a good deal of pus was discharged, and the large amount discharged through the abdominal incision, everything looked toward a favorable termination. We felt so confident of this we left her in the care of her husband and mother, who had been thoroughly drilled in the manner of cleansing and dressing the wound.

Her temperature never went above 101½° nor below 98° during the twenty-three days we visited her. One thing noticeable in regard to the temperature and pulse was, when it was above normal the dressing of the wound would bring the temperature down from ¼° to ½°, and the pulse from 2 to 5 beats per minute; and if it was below normal it would go up in the same proportion.

She lived four weeks after we discontinued our visits, and died of prostration.

QUININE AND PREGNANCY.—Merz (*Bulletin Méd. de l'Algérie*, January and February, 1890) concludes that, by setting up uterine contraction, quinine may cause abortion during the first three months of pregnancy. During the last three months that drug hardly ever provokes labor. The action of quinine during the middle months is uncertain; it certainly appears to grow less noxious as pregnancy advances. From the above conclusions it is evident that quinine ought to be avoided during early pregnancy, unless there be dangerous symptoms due to paludism.—*Supplement to British Medical Journal.*

SELECTED PAPERS.

ABSTRACT FROM PRIZE ESSAY ON (TREATMENT OF) CHRONIC CYSTITIS IN THE MALE.

By R. M. Slaughter, M.D., of Theological Seminary, Virginia.

* * * * * * * *

Chronic cystitis, as we have seen, is always a result of some other morbid process, its predisposing cause. The first principle of treatment is to remove the cause. The disease will then get well, provided there has taken place no permanent organic change in the bladder walls.

Some of the causes are, however, not removable, while again, in other cases, organic changes have taken place, and removal of cause will not cure the disease. In these cases we must treat chronic cystitis as a disease rather than as a symptom; and in some cases the treatment can only be palliative, on account of the extent of the organic changes. Few, however, are so bad that they may not be ameliorated by judicious treatment.

The simple form of the disease first requires consideration. As we have seen, this is the form which exists in most cases of so-called irritable bladder, whether from very acid urine or any other cause of irritation in or about the bladder. The only treatment usually required is rest, alkalies to neutralize the hyperacidity of the urine. aperients, hot hip baths, or fomentations, and possibly anodynes.

The alkaline diuretics in combination with demulcent or terebinthinated vegetable diuretics are very valuable. We have found such a combination as the following formula, administered in lithia water, extremely efficacious:

℞.—Potassium bicarbonate..................	ʒ ij
Fl. ext. cornsilk........................	℥ jss
Water..................................	℥ ivss

Mix. S.—Tablespoonful in half a tumbler of Buffalo Lithia Water every three hours.

According to the nature of the cause, some one of the other vegetable diuretics, such as couch-grass, buchu, kava-kava, pichi, or some of the like, may be used. It is claimed that these agents exert a special influence on inflamed vesical mucous membrane. Of the alkaline diuretics, the acetate or bicarbonate of potassium, or the liquor potassæ are most used. Sir Henry Thompson thinks highly of the old combination of liquid potassæ and hyoscyamus, which is, though chemically incompatible, of great value clinically.

Another variety of the simple form is mentioned by Thompson as occurring at a stage of subsidence between the acute attack and the convalescence, in which the very irritable condition of the mucous membrane gives rise to painful and frequent micturition with urgency and dull pain about the bladder, and often a slight appearance of blood at the end of the act. Here local applications are of most value, and he considers a weak solution of silver nitrate (not stronger than one-half grain to four ounces) the best. The method of injection will be described later on.

Passing on to the consideration of the *treatment of the severer forms of chronic cystitis*, we pass by those varieties which arise from readily removable causes. Their obvious treatment is removal of cause.

The forms which require our earnest consideration are those which arise from causes less readily, or not possibly removable; and embrace chiefly those cases in which retention of urine is the important factor, whether it be due to obstruction as caused by prostatic hypertrophy, atony of the vesical walls from lesions of the central nervous system, or other causes producing a like result.

The first principle of treatment in these cases is that the bladder be thoroughly emptied with the catheter once, twice or three times daily. The patient cannot entirely empty his bladder by the natural act, and the retained (residual) urine must be removed, for it is by the irritant effect of decomposed residual urine that the inflammatory process is kept up. Let the patient pass, by the natural act, all the urine he can. Then the instrument should be used and all the retained fluid drawn off, and its amount must determine how often the catheter should be passed daily. If the amount be less than three ounces the instrument need only be used at night. If much more than this quantity, it should be used night and morning. If the larger portion of urine is retained, it should be used three times daily—(Thompson). Of course, if a patient can pass none himself, it must be drawn off as often as necessary.

The catheterization should be done with the utmost gentleness. The patient should be taught to use the instrument himself. In a large number of cases the flexible, soft catheter answers best. Thompson considers that the French coudée catheter is the best instrument, as its turned up point passes more readily whatever eminence is presented at the neck. In cases in which it is impossible to pass a flexible instrument, the gum catheter with a stylet, or a silver one may be resorted to. The gum catheter with stylet has the advantage of being an inflexible instrument, and yet one whose curve can be easily and quickly altered. In order to pass easily over prostatic enlargement, a catheter should be well curved to its very point—(Thompson). In some cases the prostatic silver catheter is the best instrument.

The absolute importance of keeping all of these instruments perfectly clean and aseptic, it seems only necessary to mention, but not to dwell upon in these days of antiseptic surgery.

In many cases of the slighter forms of prostatic hypertrophy, keeping the bladder clean of residual urine suffices to relieve and keep in abeyance a cystitis.

However, cases of prostatic enlargement are met with in which the employment of the catheterization fails, or is unavailable, and other methods must be sought. The methods that meet the approval of the authorities of the present day are drainage of the bladder, or permanent removal of the obstruction. Some surgeons hold that both of these conditions are better fulfilled by supra-pubic cystotomy than by urethral or perineal operation. *Supra-pubic prostatectomy* was first performed by Dr. W. F. Belfield, of Chicago, in 1886. The operation was afterwards taken up and is strongly advocated by Mr. A. F. McGill, of Leeds, England. The operation consists in opening the bladder above the pubis in the usual manner, and removing with scissors and forceps that portion of the enlarged prostate which prevents the outflow of urine.

In a paper read last year (1889) before the British Medical Association, Mr. McGill gave an interesting account of the results of his experience. He had then performed the operation on twenty-four patients, all elderly, and some very old and feeble men, with a mortality of 16.6 per cent. Three of the four deaths resulted directly from the operation, and one from pneumonia during convalescence. In ten cases the operation was undertaken for removal of stone, the prostatectomy being incidental. Two of the remaining cases were still under observation; one was lost sight of. Of the ten cases in which the final result could be stated, eight had remained well. In the ninth case it had been found impossible to remove the prostate on account of its extreme hardness, and only drainage was attempted. The tenth was for a time relieved, but died ten months after operation. The reading of this paper was followed by an interesting discussion, which showed a consensus of opinion in favor of radical measures in selected cases of prostatic hypertrophy.

It would seem that the operation deserves a careful consideration and fair trial.

When only drainage of the bladder is attempted, this, too, is held by the best authorities to be most satisfactorily accomplished by the supra-pubic incision.

Nevertheless, some surgeons still advocate perineal prostotomy, and notably, drainage by median perineal incision, division of the floor of the prostate, and the insertion and retention of a suitable drainage-tube, as advocated by Reginald Harrison. Of supra-pubic drainage of the bladder more will be said later on.

We come next to the consideration of the treatment of a class of cases in which it is impossible to completely empty the bladder with a catheter, although the instrument may be introduced without difficulty. This is due to an irregular shape of the prostate, which throws out protuberances into the vesical cavity, between which are sinuses that hold a considerable quantity of urine. Sometimes, too, the hypertrophied walls of the bladder form numerous small sacculi, which also hold urine. The catheter does not remove the urine contained in these pouches, and it soon becomes decomposed and irritating. It consequently becomes necessary to wash out the bladder two or three times a day. For this purpose a flexible catheter is introduced into the bladder and connected with a reservoir, say a fountain syringe containing warm medicated water (say 100° F.).

The bag is then raised *just high enough* to allow the fluid to *flow gently* into the bladder. Thompson urges that not more than an ounce be introduced at one time, and this is allowed to run out by disconnecting the bag from the catheter. The fluid will probably be thick and dirty; then inject another ounce and let it run out, and so repeat several times. Four separate washings of an ounce each, he says, would have been more efficient than could two washings of four ounces each, and the amount of instrumental irritation would have been reduced to a minimum, and ten to one the patient will find the performance soothing.

The above described method of washing out the bladder is a very simple one; and instead of the rubber bag, any of the nasal douche apparatuses in market answers very well.

Lavaux has recently strongly recommended the washing out of the bladder by this same means of hydrostatic pressure, but without the use of the catheter. In place of this instrument he advocates the use of a metallic tube about an inch (three centimeters) in length, fitting into a conical perforated, India rubber obturator, which is introduced within the urethral orifice. This is connected with a reservoir, and when this is raised to a given height the fluid acquires sufficient force to overcome the sphincter and passes into the bladder. The stream is regulated by the different calibres of the short tubes, of which there are six sizes, varying from a little more than one to three millimeters in diameter.

It is said that it is surprising how much can be accomplished by this method, and that much suffering is spared patients. It also offers greater freedom from risk of septic infection than does the catheter method. The size of the tube to be used is regulated by sensibility of the bladder and the resistance of the sphincter in each case. The force of the water flowing through each tube with the reservoir at a given height has been calculated.

Desnos, on the other hand, declares that this method is far from being inoffensive, and should by no means be generally adopted.

Many different agents have been used to medicate the injections. Thompson prefers the acetate of lead, commencing with one-sixth of a grain to the ounce; next to this the nitrate of silver, one grain to eight ounces; or dilute nitric acid may be used—strength of ten minims to four ounces.

Of other substances advocated by different writers, may be mentioned the borate of soda, fifteen grains to the ounce; chlorate of potassium, five to fifteen grains to the ounce; silicate of soda, one per cent. solution; boro-glyceride, one to forty; salicylic acid, ten grains to the ounce; resorcin, five to ten per cent. solution, etc.

Boric acid, however, while a less powerful antiseptic than some of the others mentioned, is, we believe, the most harmless and efficient agent in a large number of cases. It may be used in strength of a saturated solution (4-100). Even when other substances are to be used, it is well to use a weak solution of boric acid for the first washing, and repeat until the water comes back clear. As it has been said, very small quantities of fluid should be injected at a time at first, but as the condition of the bladder improves and its tolerance increases, the quantity may be cautiously increased. The tolerance of the bladder should always be taken as a guide, and never should enough fluid be injected to cause pain. The fluid should also be as warm as can be comfortably borne, at first about 100° F.; later, higher temperatures may be of advantage.

It has also been recommended that in cases in which injections are painful, in spite of all precautions, that the first injection should be a solution of cocaine.

Dr. L. Frey recommends iodoform as especially suited on account of its antiseptic, analgesic and deodorizing properties for the treatment of chronic cystitis.

The bladder is to be first cleansed with warm water, and then some of the following mixture, in strength of a tablespoonful to the pint, injected into it:

℞.—Iodoform	50 parts.
Glycerine	40 "
Distilled water	10 "
Gum tragacanth	$\frac{1}{4}$ "—Mix.

The injections should be repeated every third day.

Dr. Mosetig Moorhof claims to have treated and cured twenty-three cases in this way. No symptoms of intoxication from the drug were observed.

The impregnation of the urine with antiseptic agents administered internally has come into use of late years, and has proven of considerable value in the treatment of chronic cystitis. For this purpose benzoic acid, the benzoates, boric acid, eucalyptol, lactic acid, salol, and other remedies are advocated. The most convenient and efficacious of all these is, in our opinion, salol. When given internally, it is split up into its component parts, carbolic and salicylic acids by the action of the pancreatic juice. These acids are then eliminated in the urine in combination with other elements, thus rendering the fluid antiseptic. Its action in preventing ammoniacal fermentation is certainly very marked. It is generally well borne, and does produce toxic symptoms. A fair average dose is ten grains three or four times daily. Much larger quantities may be given.

By the use of salol combined with lithia water to promote free action of the kidneys, we have in some cases been able to omit the use of injections entirely. It is also sometimes well to use some of the demulcent or terebinthinated vegetable diuretics before mentioned. These have the effect of diluting the urine, and possibly exert some therapeutic effect on the mucous membrane. In gonorrhœal cystitis, the fluid extract of pichi in large doses, frequently repeated, is recommended by some writers as highly efficacious. Desnos speaks highly of Venice turpentine made into pills with magnesia, as especially useful when other remedies are not well borne by the stomach.

The pain and tenesmus often require anodynes, which are best administered by suppository. The combination of opium and belladona, or opium and hyoscyamus with ichthyol (5-10 grains to suppository), we have found very efficacious. Hot poultices containing mustard, hot fomentations, wet or dry, and hot hip-baths are often valuable and useful in allaying pain.

The bowels are also to be kept open; if a laxative is necessary for this purpose, a saline mineral water is to be preferred.

In speaking of mineral waters, we should probably lay more stress than we have done upon the value of the alkaline or so-called lithia waters in the treatment of chronic cystitis. These waters are very adjuvants, and more particularly when there is co-existing lithæmia, or renal complication. The great drawback to a more general use of these waters is the exorbitant price charged for the best of them. The above means are to be aided as far as possible, or as is consistent with general health, by rest, and proper attention to diet.

Tonics are often useful, the mineral acids of the tincture of iron and strychnine, being about the best. The mineral acids, however, are of little value when given for the purpose of lessening the alkalinity of the urine, for while they may render it slightly more acid, they do not acidify it. Moreover, alkaline urine rarely enters the body as such. When excreted from the kidneys it is almost always acid, and becomes alkaline after entering the bladder. The mineral acids will not prevent this. Alkalinity of the urine requires such local and general treatment as has been before detailed. A vegetable acid, such as benzoic, or preferably, citric acid, is quite efficient in preventing or lessening alkalinity when due to phosphaturia. Hyper-acidity of the urine, on the other hand, is due to constitutional error, and requires specially general and hygienic treatment.

Change of climate is sometimes beneficial, specially when warmer regions for wintering are sought.

It does not seem easy to say anything in addition to what has been said in giving a general outline of the treatment of chronic cystitis. Further details, which may be applicable to the treatment of this disease, belong rather to the treatment of the affections which underlie the cystitis, save one other feature yet to be described as our *dernier ressort.*

It not infrequently happens that cases of chronic cystitis are met with in which the disease persists in spite of all treatment, and great suffering is experienced, and life even threatened. The only thing now to be done is to resort, as in the before mentioned condition due to prossatic enlargement, to an operation for draining the bladder. Various operatives procedures have from time to time been advocated for the relief of these forms of cystitis, but practically they may be narrowed down to perineal or supra-pubic cystotomy. To-day, however, the weight of authority is more favorable to the high operation. This operation has several advantages. It allows easy and perfect examination of the interior of the bladder, the removal of any removable cause of trouble, and perfect drainage, with the assurance of complete rest for the bladder.

The chief contra-indications of this, or any operation for similar purpose, are renal complications, malignant neoplasms of the bladder, and a very low general condition. When the cystitis gives rise to great suffering, or, in other words, there exists that special form which the French term *cystite douloureuse,* surgical intervention may be justifiable under any circumstances, except when there is advanced renal disease, as it is said that suffering is relieved as long as the incision remains open.

Our celebrated Southern surgeon, Dr. Hunter McGuire, is an earnest advocate of the advantages of the supra-pubic operation for drainage of the bladder.

There is a class of cases, says Dr. McGuire, in which the obstruction is great and fixed, micturition is frequent and difficult, perhaps impossible without the aid of the catheter. The introduction of this instrument grows more and more difficult; offensive residual urine is always present, and the general health suffers greatly Cystitis, localized or general, is a painful and pronounced symptom. Violent tenesmus of the bladder, provoked by the obstruction injures the vesical ends of the ureters; possibly a reflux of stale urine is driven into these canals, and ureteritis follows; then pyelitis and pyelonephritis, from which the patient dies.

It is to the relief, by surgical interference, of this class of patients that he specially calls attention.—*Virginia Medical Monthly.*

OBSTINATE VOMITING CAUSED BY WORMS.—Dr. Giacomo Arrigossi records (*Gazetta degh Ospitali,* September 21st) a case of obstinate vomiting due to irritation of the vagus by ascarides in the intestine. The patient was a woman, aged 35, who for some months had suffered from severe indigestion, with pain in the epigastric region, and vomiting after food. She had been treated by various physicians with antacids, pepsine, etc., but with little benefit; washing out the stomach was also tried, but did no good. The stomach was not dilated, and no tumor could be felt, but the pupil was "enormously" dilated without any obvious cause. Dr. Arrigossi, considering the symptom as a sign of reflex irritation of the pneumogastric, sought for the cause in the digestive tract. After a dose of calomel, ascarides were found in the stools; santonin was then given with "splendid results." The vomiting and dyspeptic symptoms ceased, appetite returned, and the patient was completely cured.—*Supplement to the British Medical Journal.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN WILMINGTON, N. C.

Thomas F. Wood, M. D., Wilmington, N. C., } Editors.
Geo. Gillett Thomas, M. D., " }

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EXPERTISM.

What one of our readers if asked if he considered himself an expert in all the departments of medicine could unqualifiedly answer in the affirmative? It seems to the writer that very few physicians could seriously consider their skill, as compared with the most skilful of their teachers, to be excellent. An honest man would be very much inclined to reply that in this or that branch of medicine he had been taught the principles, and had had more or less practical knowledge, having a justifiable estimate of his knowledge as compared with those seeking information from him;

but to say that he was an expert in the sense that his opinion could be used as the basis of judicial decision, or to decide the verdict of a jury, he would at once begin to qualify. The practice in our courts, though, does not bear out so high an estimate of expert qualifications as we have signified, for in the great majority of cases the court calls a physician to the stand as a witness without asking the question if he considers himself an expert, but assuming because he is a physician in regular standing he is therefore able to decide medico-legal points. The practice has grown up, too, of engaging partisan experts, all unconscious to the partisan so arrayed sometimes, but nevertheless partisan in the sense that they are willing to become advocate-witnesses after hearing what the other side is going to prove, undertaking principally to give opinions upon hypothetical questions. This may be as far as law is able to go, at present, but it makes justice sometimes a very remote approximation to truth by reason of this faulty assumption of expertism. It is easier to show the defects in this practice than to point out how it could be remedied, but surely as the matter now stands expertism is adding very little to the procurement of justice; we may go a little further and say, that the inefficiency of expert testimony, its inequality, its blunders, its low standard, is purposely played upon by sharp counsel to win their cases. It would take the conceit out of most experts if they could interview a jury after the verdict had been rendered, indeed it would astonish most honest doctors, who make no claim to being experts, to learn how little of testimony which simply deals with facts of a medical character which they render, impresses the average juryman. Lawyers with experience in the criminal courts know this, and they seize the opportunity to array experts against each other for no other purpose than to befog the jury.

It came to the ear of this writer that in a recent case a few jurymen were interviewed as to how they would have voted upon a certain verdict if the case had not been brought to a termination by a motion of court. The circumstances were these: A patient called at the office of this writer with evidences of having been beaten. He was bruised about the face, especially his right jaw. He had the appearance of having been drunk, and was dull and nervous and apprehensive about his condition. He claimed he had not been drinking for a few days, and his statement was confirmed by a failure to detect the odor of alcohol in his breath. His complaint seemed to be exaggerated beyond the nature of his wounds, as external examination revealed no bones broken, but only a cut in the inside of the cheek against the teeth. Patient made a second visit to the doctor and the complaints seemed out of proportion to the nature of the injury. At both consultations he disclaimed having been drinking, and both times the statement was confirmed as far as could be by the breath. He was seen no more by this physician until he was called in consultation at the hospital, where he found the patient in a dying condition. His pupils very irregular, spasms of the left hand finally extending to the left, Cheyne-Stokes breathing, great pallor, large ecchymotic stains over the seat of injuries, lower extremities not responding to external stimulus and pinching. Patient died during the same night, eight days after the infliction of the injury, and a post-mortem was made. The scalp over the occipito-temporal region was extensively bruised and pericranium stained. Immediately beneath this, on removing the calvarium, there was a clot *external to the dura mater*, there was a rupture of a branch of the right middle meningeal artery. There was no clot upon the brain and nothing abnormal. There was in the scalp over middle of frontal region a very small old bruise antedating the larger wound on the right side of the skull. The post-mortem inference was that death resulted from the clot due to the effusion from the rupture of the meningeal artery. This opinion was held by the two physicians who were present at the post-mortem examination who saw this special lesion, and who had studied the ante-mortem symptoms. They were able, therefore, to give their opinion that death was the result of blows on the right side of the head.

Counsel for the defence introduced a physician stating a hypothetical case, asking his opinion as to the probability in the case of a drunkard, that the effusion of blood may not have been from the effects of drunkenness; if it was not well known that in cases of such effusion that the right side of the brain was not the favorite site of such hæmorrhage. So adroit was the questioning by the counsel that the jury became greatly confused over what seemed to them conflicting evidence, and a few of the more intelligent ones were willing to render a verdict of not guilty, regarding the medical testimony as to facts as of no more weight than the hypothetical case of the opposite side.

The time may come when the theory ot expert testimony, viz: that all doctors qualified to practice medicine are necessarily experts in all the branches they have to practice, but it is not so at present. We enter here a mild protest against physicians allowing themselves to be called experts, when they are not, when such an opinion of their qualifications could only be determined by a committee of their professional peers after an examination, or some more positive knowledge of their abilities. It is really a delicate question for one to decide for himself.

Finally, it would advance expert testimony and opinions, if, instead of the expert being summoned by the counsel in the case, for the selection to be made by the judge, after carefully obtaining the opinion of the medical profession as to the qualifications expected in a given case. This latter thought may be entirely Eutopian, but it is not wider the mark than the present assumption of the graduated qualifications of all doctors as experts on all medical questions. T. F. W.

ARSENICAL MELANOSIS.—Professor Wyss (*Correspondenzblatt f. Schweizer Aerzte*, 1890, No. 15) relates the case of a girl of 12 and a boy of 10, who were treated for chorea with 1 : 2 Fowler's solution. After a daily dose of 45 drops of the solution had been reachsd, a general, dirty-brown pigmentation appeared over the whole body. This disappeared on discontinuing the arsenic, but it recurred again in the case of the girl when the arsenical course was resumed. Portions from the skin of one of these patients and from another case were examined microscopically. In earlier cases the granular coloring matter was deposited in the lymph channels in the papillæ, and to a less extent in the cutis. In older cases, on the other hand, the deposit took place in thick clusters in the widened plexures of the lymph vessels of the cutis. Attempts were made to ascertain the condition of the cutis, but no positive results were obtained. Professor Wyss is of opinion that a considerable decrease in the number of blood-corpuscles and in the amount of hæmoglobin occurs after the use of arsenic; that arsenic, when absorbed in sufficient quantity, disturbs a great number of blood-corpuscles, and partly displaces the hæmoglobin, and the decomposed blood pigment reaches the lymph channels of the skin in an insoluble granular form, where, if the deposit be sufficient, it produces arsenical melanosis.—*Sup. to the Brit. Med. Jour.*

REVIEWS AND BOOK NOTICES.

A Manual of Modern Surgery: An Exposition of the Accepted Doctrines and Approved Operative Procedures of the Present Time for the Use of Students and Practitioners. By John B. Roberts, A.M., M.D. Philadelphia: Lea Brothers & Co., 1890.

This is a very compact octavo volume of about 800 pages, offered as a practical text-book on the Science and Art of Surgery as it now exists, for the profession, fully conscious that the lapse of a few months only, adds much to our substantial knowledge of surgery, never weary of a fresh volume on the subject; and when this volume comes from the pen of one who has been for some time a contributor to the journals upon the advance methods, and who is a teacher of this branch, they are disposed to receive such a volume with favor.

There is nothing noteworthy in the arrangement of the subjects, nor is there special need that the teacher should deviate from old arrangements of matter, as book-readers are facilitated in consultation by the conventional enunciation of the principles of inflammation, inflammatory processes, erysipelas, scrofula and tuberculosis, syphilis, rickets and rachitis, tumors, wounds and shock, method of repair of wounds, practical surgery and anesthesia, etc., etc.

At every point the writer gives a practical turn, wasting very little time and space in discussing mooted questions. The subject of Anesthesia is compassed in four pages, but is written with less bias than is usual in similar works by Philadelphia authors. The author enunciates the following:

"Anesthesia is always a dangerous condition, and requires the undivided attention of an experienced assistant. Death has occurred not infrequently from etherization and often from chloroform anesthesia." * * * "The semi-recumbent or sitting position is not justifiable during chloroform inhalation. In operations upon the nose and palate it is often better to have the patient lying on his back with the head so bent backward that the palate is lower than the floor of the mouth. Blood is thus kept away from the site of the operation, and yet does not flow into the larynx, causing choking and coughing."

The minute directions given for anesthesia are applicable to the use of ether, but contain many hints that an old anesthetizer can get some excellent points.

"The principles or fundamental laws" which the author lays down for operative surgery are good and will bear transcription :

1. Obtain the services of an etherizer who will not require you to superintend the anesthetic.

2. Take precautions to prevent hæmorrhage, if the locality renders this possible.

3. After proper thought and consultation have the plan of operation clearly outlined in your own mind.

4. Have the patient, the instruments, yourself and your assistants absolutely aseptic.

5. Proceed systematically with the steps of the operation decided upon, and do not be led into a mixed operation by bystanders, unless unexpected developments in diagnosis occur.

6. Attack the greatest difficulties and dangers of the operation first.

7. Do not stop to tie any except large vessels, but let assistants apply hæmostatic forceps, or make pressure with their fingers until incisions are completed.

8. When the operation is finished stop hæmorrhage and apply dressings.

9. Finally, remember that suppuration in an operation wound is usually, probably always, due to careless asepsis on the part of the surgeon or his assistants, except in those instances where the operation is done on tissues already suppurating." Simple enough are the above, but not always remembered by those who do not have considerable surgical practice.

The points we have examined with the most interest in this volume, causing us to scrutinize them quite carefully, have given great satisfaction.

The author has succeeded in giving a symmetrical view of all the subjects, so that the student who is for the first time receiving instruction in the elements, and the doctor whose mixed practice leads him to consult a special chapter, are equally safe.

Small as this volume appears in comparison with the encyclopediac works we are accustomed to, it has not slighted any of the depart. ments of surgery, except that of the eye and ear, but they are branches which have long since outgrown works on general surgery.

The illustrations are numerous, comprising many of the venerable stock figures of the surgeries of the past, classical and appropriate, but there are many new ones, and we can complain of no lack of pictorial aid.

We feel assured that this is a substantial text-book, condensed, lucid, practical, and will take its place with the best now accessible to the student.

NC Med J (O.S.) 26:699-700, #5 Nov 1890

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON GENERAL'S Office, United States Army. Authors and Subjects, Vol. XI. PHEODRONUS—RÉGENT. Washington: Government Printing Office, 1890, 4to., pp. 1102.

The appearance of the 11th volume of this great work, reaching only "Régent," indicates that the work will probably reach two or three more volumes before it is finished, and then a supplement will probably be a necessity. The Government makes no investment which is more honestly administered than the sum appropriated to the preparation and issue of these volumes, and probably no volumes have given our Government more reputation for liberality and scientific spirit than they have. The typographical merits of the Index-Catalogue we have written about before, but one must be familiar with the volumes as aids in library work before he can fully appreciate the excellence of the arrangement, the variety of type as helps to the detection of the item in quest, the clearness of the impression, and the wonderful freedom from typographical errors.

The subjects "PHARMACOPŒIA" and "PHARMACY" include a large number of items, extending over 58 double columns. PHRENOLOGY, the dead art, has a literature comprised in 11 columns, with now and then an item as far down as the eighties, the great majority apparently being of the dates between 1840–1850; PHTHISIS, remaining at this date by far the most interesting and important disease of the age, has an enormous literature past and present contained in 358 columns; in 42 columns are arrayed all that physicians have said about physicians, a formidable array; 80 columns are devoted to PHYSIOLOGY; 50 columns include the items on PLEURA and PLEURISY; PNEUMONIA, as would be expected, has

110 columns devoted to it; PREGNANCY covers a space third in extent to that of Phthisis, filling 126 colums; PTOMAÏNES, a comparatively recent subject, the very large majority of which are of this decade, reaches the surprising space of 6½ columns; PUERPERAL has items enough in volumes, pamphlets, medical journal articles enough for 150 columns; QUACKS and QUACKERY take up 14 columns; 33 columns are devoted to QUARANTINE; 28 columns to QUININE; the RECTUM gets 66 columns. These few items give a slight idea of the vast number of volumes and treatises written upon such subjects as are mentioned; the Index-Catalogue makes all these available to the student-physician, under certain rules.

THE ESSENTIALS OF MEDICAL CHEMISTRY AND URINALYSIS. By Samuel Woody, A.M., M.D. Third Edition. Philadelphia: P. Blakiston Son & Co., 1012 Walnut St., 1890.

This book, in its previous editions, has met with favor. In urinalysis it isnot up to the latest knowledge of the subject.

HEREDITARY ATAXY AND ATROPHY OF THE CEREBELLUM.—Menzel (*Arch. f. Psych.*, Bd. xxii, H.I.S. 160) records the case of a man with a strong neurotic family history, who died at the age of 46. From the age of 6 years uncertainty of movement had slowly supervened, and at last he could not walk, write, or follow his occupation. The case was diagnosed as one of Friedreich's disease. At the necropsy it was found that there was most marked atrophy of the cerebellum. The microscope showed the following changes in the spinal cord: In the lumbar region atrophy of the cells of the anterior cornua and of the anterior roots, degeneration of the posterior columns and posterior roots; in the dorsal and cervical regions degeneration of Goll's, Burdach's, the pyramidal, and the cereballar tracts. These degenerations extended up into the medulla.—*Supplement to the British Medical Journal.*

CORRESPONDENCE.

A CASE OF ACUTE BRIGHT'S DISEASE—WITH URÆMIC CONVULSIONS AND COMA.

Messrs. Editors North Carolina Medical Journal:

On July 1st, 1890, was brought to my office a white girl, 11 years old, with a good family history and previously good health. She was stout and heavy for one of her age. For only a couple of days prior to her visit to me there had been noticed a slight swelling of the feet and ankles, with puffiness of the lower lids. There were no subjective symptoms.

I diagnosed kidney trouble and put her on a diuretic plan of treatment.

On July 5th I called to see her at her home, a distance of three miles in the country. Found her up, bright and cheerful, but swelling of lower extremities and puffiness of face very little improved, though there has been an increase in the amount of urine voided per diem since her visit to my office.

On July 8th was hastily summoned to find her in convulsions. She had three spasms, with intervals of two and a half to three hours, at which time *all* the voluntary muscles were promptly convulsed—bloody froth appearing at the mouth. Convulsions lasted from two to four minutes. These muscular twitchings lasted for six hours, after last convulsion, and she rapidly passed into coma. That was on the evening of 8th of July, and she remained perfectly insensible to any external irritation—hearing not, seeing not, tasting not, feeling not, speaking not, until the evening of 14th of July, when she opened her eyes and spoke for the first time in six days and nights.

To control the convulsions I used often repeated hypodermics of morphine, and occasionally, *during the coma*, I administered small hypodermic doses.

To reëstablish the suppressed renal function, I used infusion digitalis in large doses—ʒ iv. every three hours—by enema, as it was impossible to administer by the mouth. Also used dry and wet cupping over the loins.

For the sake of diaphoresis, I used the hot pack. The effects shortly following the administration of these remedies gave me hope and courage to persevere in the plan of treatment which saved my patient.

The "plan" is, I believe, the routine of the profession in regard to these cases, with one important exception—*the hypodermic injection of morphine.*

Morphine thus administered not only controls muscular spasms, [illegible] becomes a powerful eliminating agent, as it facilitates the action [illegible] cathartics and diuretics, *especially the diuretic action of digitalis* (Loomis), and reëstablishes a diaphoresis which is sometimes profuse. The object in calling attention to this remarkable case is to speak earnestly in favor of the free use of morphine, hypodermically administered, in all cases of uræmic convulsions.

Most of the authors only speak of morphine, in such cases, to guard against its use. Blessed be the few that recommend it, and their names shall not be forgotten in the land." Specific gravity urine during first days of sickness was from 1.028 to 1.030; was very albuminous, and contained blood and epithelial casts. Milk, by enema, was the form and mode of nourishment administered during the prolonged coma. The patient was kept in a large well ventilated room from beginning to complete recovery.

The digitalis was withdrawn as soon as diuresis was established, and the free use of diluent drinks substituted. It is a great pleasure to add that the recovery of my little patient is complete, there being no evidence of permanent impairment of the kidneys.

E. F. STRICKLAND, M.D., Bethania, N. C.

UNUSUAL PROCEEDING IN A SEVERE CASE OF ABORTION.

Messrs. Editors North Carolina Medical Journal:

In an experience of above a third of a century I have not met with a case death from abortion nor from its immediate effect; but I am persuaded that by deviating from well-established principles in the following case, while I ran the risk of causing the patient's death from septic poisoning, I actually saved her life.

On the morning of February 26th, 1881, passing the house of Mr. S., a mile from home, I saw his wife walking in her garden. In an hour afterwards she was taken with violent flooding, being three months advanced in her fifth pregnancy, and this being her second abortion, Mr. S. immediately dispatched a messenger for me, and to save time, instead of sending to my house to inquire where I was expected to go, I ordered his man to hurry on, and depend upon inquiring on the road, and from house to house, to overtake me. It happened that I followed a very devious way that morning, visiting four or five patients, and stopping for dinner ten miles from home. Here the messenger found me just after noon, it having been several hours since Mrs. S. had been taken. Knowing from former experience with this lady that her life would probably depend on my speed, I lost no time in getting to her side. I found her *in extremis*, as I verily believed; face blanched, pulse at the wrist imperceptible; nausea and vomiting. Her stomach retained nothing. The clots having been taken away and practically destroyed, I could not tell whether any part of the ovum had passed or not.

I put on a tampon and compress and inguinal bandage, and, as the stomach could not be induced to retain anything at all for more than two days, I used hypodermically ergot, nux vomica and whiskey pretty freely, keeping her on the left side, where I found her. The tampon was not removed till the third day, and after she had begun to retain egg-nog by the stomach and the pulse began to revive. Then I yielded to her entreaties to be turned over, and found the hip and nates on the left side excoriated from having bee bathed in the blood, etc., from the time when she was first taken. Then for the first time was the tampon removed after remaining in situ at least fifty-six hours. The little placenta was removed with the tampon and without hæmorrhage, and Mrs. S. made a slow and painful recovery, on account of the effect of the hypodermic injection; for in at least twenty places on the arms and legs all the tissue inflated by the injections sloughed, leaving cavities large enough to bury the bent thumb up to the first joint. Under ordinary circumstances, of course, it would have been considered highly reprehensible to incur the risk of leaving the tampon so long. But in this case there was good reason to fear that the patient would not rally at all from the first, and the removal of the tampon would almost certainly have been followed by a little bleeding, and that little, in the state in which she then was, would have surely been fatal. But septicæmia was by no means certain to follow the course pursued. The sequel proved that, whether suppported by scientific principles or not, the patient's life was saved by the treatment, and that was the sole object to be desired.

John W. Booth, M.D., Tally-Ho, N. C.

ELECTION OF OFFICERS FOR THE NORTH CAROLINA MEDICAL SOCIETY BY BALLOT.

[Second Communication.]

Messrs. Editors North Carolina Medical Journal:

The election of a Board of Examiners (by ballot) has been long and satisfactorily practiced by the North Carolina Medical Society every election for the past twenty years has proven more and more that it is a wise and proper manner of selecting this most important body. At each election the members especially suited for this particular work are chosen. This being so, it certainly would seem that the Society could with wisdom select its own officers. Two members of the Board of Health have been elected by ballot at several recent meetings, and these have proven to be perfectly satisfactory and certainly proper selections. Now, if these members of the Society can be elected to serve *so long a time* and placed in positions to guard the honor, dignity and respectability of the medical profession of the State; certainly one man can be selected by ballot, without any trouble, to preside over the deliberations of the body for one year.

The American Medical Association is, as I said before, composed of delegates from different States, and no two members of the nominating committee are chosen from the same delegations, thereby rendering it almost impossible for the President to select his committee with reference to his successor in office. While in the meetings of the State Society, as you know, there is no recognition of delegates from county societies, and, in fact, it is seldom that county societies send any delegations, consequently the meetings are "mass-meetings," composed of any member in the State, who attends, each having as much right and voice as another, and each only responsible to himself for his actions, then it is possible for the President to ascertain the choice of enough men for the next President, select his committee accordingly, thereby naming his own successor.

The standard for membership in the North Carolina Medical Society is very high, and correctly so, requiring applicants to stand a very rigid examination, before being admitted, they are also required to produce testimonials of a moral character. Whether there be a democratic or aristocratic principle involved in the government of this body, certainly the requirements prove "the principle of learning, accomplishments and moral rectitude" in the *whole* body, consequently a body of men, after complying with these necessary qualifications, should be trusted to manage their own affairs. And it would seem unjust to say that any politician among them could divert them in their elections from looking constantly to the best interest of the Society and to medical science, and to that end selecting the best and most useful officers.

You say that past experience does not sustain the general ballot. Now, if I am not mistaken, the North Carolina Medical Society has never, since its organization, elected its officers by ballot, but the law has always been that the President appoint the nominating committee, therefore it has never been tried in this body; and even if this is a member of the American Medical Association we cannot copy after it in this particular, because of the different construction of the two bodies.

At Durham the committee was made up of nine members, one being appointed from each congressional district, but after that one time the resolution seems to have become a dead letter, and we have heard no more of it. This would be a much more satisfactory plan of selecting the committee than that which is now practiced, throwing some restrictions around the President in his appointments.

If it were possible for the Society to elect the committee that names the President, it would be better than the present plan, wherein our President can exercise an autocratic power, not being responsible to any one. Russia never had an Emperor holding and exercising the powers of government, by inherent right, without any restriction, more than the President can exercise under the present law of the North Carolina Medical Society.

J. W. McNeill, Fayetteville, N. C.

[The Medical Society of North Carolina, in its early history, *did* resort to ballot for the election of officers. There are some gentlemen now living who remember the bitterness of feeling caused by it at the time. The Society was then a mere handful. We have now the same human nature to contend with in a Society twenty times or more its original size, and those who witnessed the contentions of that day will not be willing to run the same risks again without warning the less experienced members against the dangers.

The distinction is properly made between the election of Board of Health and Board of Examiners and other officers of the Society, these former being parts of the executive machinery of the State, the selection therefore being analogous to the method of choosing other State officers, and while we do not admit it is the best way to select these officials, it is expedient in order to satisfy possible criticisms from public men, whose ambitious designs might be aimed at our organizations. But ours is a learned body, desiring to be far above the methods of the best politicians, and if a plan can be adhered to which will keep down the political ardor which comes so natural to some of our brethren, we ought to do it. We do not doubt that wise counsel will prevail, and we can safely leave it to the Society after members have been well informed about our antecedent history.—Eds.]

Pasteur Institute in New York.—We have received a statement of the Pasteur Institute in New York, for these statements have flooded the mails, and we are only waiting for the Pasteur inoculations to be reliable, standing the test practically and scientifically. We do not believe that Pasteur has made a discovery of anti-rabic fluid the inoculation of which furnishes protection against hydrophobia, and the methods and processes, so far as made public, are not one whit higher in scientific value than that of Friere in yellow fever prevention.

CURRENT NOTES.

Congenital Diaphragmatic Hernia.—Dr. Herbert R. Spencer (*Obs. Soc. Trans. Lond.*,) vol. xxxii, p. 132) reports three cases of congenital diaphragmatic hernia. In two the congenital deficiency was on the right side, and the liver, small intestine, cæcum, vermiform appendix, and a part of the liver had passed into the chest. In a third case the diaphragm was entirely wanting on the left side. In this instance the small intestine, stomach, and great omentum, the spleen, and a part of the left lobe of the liver filled the left side of the chest. The causation of these abnormalities is not discussed. —*Supplement to the British Medical Journal.*

To Control Epistaxis by a Simpler Means than Bellocoq's Canula.—My plan is not only effectual, but is easy of application and absolutely painless, and can be probed in the smallest patients. The little device which I use is made of fifteen of the long threads of patent lint, size three and one-half or four inches long, which I double on themselves and tie in the middle, and let one end of the string be six or eight inches long so as to pull the plug out when necessary. When doubled on itself it looks like a "comet" in miniature with a nucleus and thirty tails (or twice the number of threads used). A probe, or soft piece of pine but little bigger than a match, is pressed up against the centre, and it is passed back upon the floor of the nasal cavity and pushed on till you reach the posterior nares. This will be known both by the resistance and the length of the probe, or the depth which you have reached. Then slowly withdraw the probe and plug the anterior nares, and you have arrested the bleeding. These twenty or thirty ends floating in the blood at once coagulate it. The passage of the soft lint gives no pain whatever. In persuading children to submit to the operation I often pass the lint up my own nose to satisfy them it gives no pain. If lint is not at hand I use the largest size spool cotton. Some years ago I called the attention of one of our local societies to this matter, and it was mentioned in a local journal, but attracted no attention. Seeing the notice of Dr. Fridenberg's method in the *Medical Record,* I send this to you, hoping it will have a wider circulation. Any sensible layman can perform this operation. Many years ago I was wont sometimes to remain at the patient's house for hours, fearing a return of the bleeding, but df so no longer. The plug is removed in from twenty-four to forty-eight hours. It gives no pain and the patient is willing for it to remain. The other methods are all painful in execution, and the discomfort, while the plug remains, is very considerable.—*Medical Record.*

GERMAN SCIENCE AND AMERICAN ART.—The following comments on German universities and German medicine, from the pen of Professor William Osler, are calculated to inspire a sense of due humility in the American breast. Writing to friends at home, Dr. Osler says (*New York Medical Journal*): "Now, as you are in part a Teuton, it may interest you to know the general impression one gets of the professional work over here. I should say that the characteristic which stands out in bold relief in German scientific life is the paramount importance of knowledge for its own sake. To know certain things thoroughly, and to contribute to an increase in our knowledge of them, seems to satisfy the ambition of many of the best minds. The presence in every medical centre of a class of men devoted to scientific work gives a totally different aspect to professional aspirations. While with us—and in England the young man may start with an ardent desire to devote his life to science, he is soon dragged into the mill of practice, and at forty years of age the 'guinea stamp' is on all his work. His aspirations and his early years of sacrifice have done him good, but we are the losers and we miss sadly the leaven which such a class would bring into our professional life. We need men like Joseph Leidy and the late John C. Dalton, who, with us yet not of us, can look at problems apart from practice and pecuniary considerations. I have said much in my letters of splendid laboratories and costly institutes, but to stand agape before the magnificent structures which adorn so many university towns of Germany, and to wonder how many millions of marks they cost, and how they ever could be paid for, is the sort of admiration which *Caliban* yielded to *Prospero.* Men will pay dearly for what they prize dearly, and the true homage must be given to the spirit which makes this vast expenditure a necessity. To that *Geist* the entire world to-day stands debtor, as over every department of practical knowledge has it silently brooded, often unrecognized, sometimes when recognized not thanked. The universities of Germany are her chief glory, and the greatest boon she can give to us in the New World is to return our young men infected with the spirit of earnestness and with the love of thoroughness which characterize the work done in them.."

We trust that the feelings here expressed may be widely shared, and prove a stimulus to American workers.

It must not be thought, however, that the commercial *Geist* which afflicts our profession is entirely indefensible, or that it is not also very fruitful of good. Americans have been forced by the nature of their environments and the character of their institutions to apply themselves almost entirely to the art of medicine. Every possible method by which disease can be cured or suffering alleviated is ingeniously devised, eagerly appropriated, and its real value quickly determined. We can say, without boasting, that the representative American physician is the best kind of physician—acute, resourceful, kind, sound in judgment, quick in action, patient, never sparing himself.

We have not, it ic true, a class of men totally devoted to scientific work and contented with its rewards. But they will come, and some are already here. Of this the eloquent writer of the paragraph we have quoted is an evidence and an example.—*Medical Record.*

DEATH OF DR. CHARLES HANDFIELD JONES.—"Medical science has sustained a great loss in the death of Dr. Charles Handfield Jones, than whom the British empire can furnish few who throughout their life have been more zealously, more heartily and more honestly devoted to the most unselfish and conscientious research of scientific truth." (*British Medical Journal.*) Dr. Jones was born in 1819, and died at 71 of cancer of the stomach. Although he was a voluminous contributor to the *British and Foreign Medico-Chirurgical Review*, and to the *Transactions of the Royal Medical and Chirurgical and Pathological Societies*, his best known works are the one written jointly with Sieve Ring—*Manual of Pathological Anatomy*, and his more famous book "Clinical Observations on Functional Nervous Disorders." Half the medical world went to school to Dr. Jones in this original volume, and the other half who missed it, have failed to get the proper enlightenment on functional nervous disorders. His fame will long be cherished by American physicians, and all who have had the pleasure of receiving instrution from his pen will be further interested to know that it was said of him by the friend who penned his obituary that he was "one whose entire earthly life served as a preparation for a better existence, and who passed away from us in sure and certain hope of the resurrection of eternal life."

FLUORESCEÏN IN THE DETECTION OF ULCERATION OF THE CORNEA: A FAILURE.—At the last meeting of the Medical Society of North Carolina in Oxford, fluoresceïn was introduced and distributed by one of the members, upon a suggestion from the *Johns Hopkins Bulletin.* It was claimed that drops of a solution instilled into the eye would stain the minutest points of corneal ulceration, and detect, by this staining, the point at which the minutest foreign body had imbeded itself in the cornea. A faithful trial of this chemical does not bear out its claims. In the hands of none who have tried it do we get reports of success. It is almost a pity to blast the hopes of so promising an aid to diagnosis.

LESIONS IN DEATH FROM BURN.—Emil Welti (*Centralbl. f. allg. Path. u. pathol. Anat.*, August 15, 1890) records three cases of deaths from burns caused by an explosion of petroleum. In the first case (a woman, aged 55) death occurred five hours and a half afterwards. The burn involved the upper and lower extremities and the whole of the trunk with the exception of one side of the chest, the face and scalp. The necropsy, the results of which are fully recorded, revealed nothing special in most of the organs. The mucous membrane of the stomach was pale, that of the jejunum stained with bile, its folds broad and high, rete villi thick and succulent; but neither in stomach nor in duodenum were any hæmorrhage or ulcers to be found. In the ileum the epithelium readily peeled off, the follicles were slightly swollen and injected, and in certain patches several follicles had fallen out, leaving circular defects. The large intestine was normal. The anatomical condition is summed up as an extensive burn of the first, second, and to a slight extent also third degree, with follicular ulceration of Peyer's patches. On microscopic examination there were found stases in the vessels of the medulla and intestine; masses of granular material and thrombi in the cortex of the kidneys, spleen, portal vessels, and especially the interlobular veins, in cerebral hemispheres, medulla and pia mater; hyaline thrombi in veins of spleen and medulla of kidneys, with hyaline casts in certain of the renal tubules. The second case was that of a woman, aged 33, the burn, chiefly of the second degree, involving the arms, legs and back. Death occurred in 36½ hours. The post-mortem examination showed contracted kidneys with hæmorrhages. In the highest part of the jejunum there was diffuse hæmorrhagic effusion along the edges of the valvulæ with punctiform hæmorrhages here and there between the folds. Several of Peyer's patches were strongly injected. On microscopic examination there were stases in kidneys and vessels of medulla; thrombi in kidneys, liver and pia mater; hyaline thrombi in portal vessels, desquamation of epithelium of straight tubules of kidney and in stomach. In the third case (a girl, aged 23) there were extensive burns of second and third degree involving the hands and lower extremities. Death in 60½ hours afterwards. Hæmorrhages were found on the dura mater, under the pericardium, in the kidneys and in the mucous membrane of the pelves of the kidneys; mucous membrane of stomach and duodenum strongly injected. Microscopic examination showed stases in vessels of cerebral cortex, pia, medulla, pelves of kidney and epicardium; thrombi in vessels of kidneys, liver and dura mater; hyaline thrombi in vessels of stomach hæmorrhages in pelves of kidneys, epicardium, gastric and duodenal mucous membrane; and necrosis of epithelium of urinary tubules, liver cells and gastric mucous membrane. The author, in conclusion, discusses the mode of origin of the vascular and hyaline thrombi and the parenchymatous changes in liver and kidneys. The renal changes he regards as the results of the thrombosis, and not as a nephritis directly induced by the burns—the view previously advanced by Ponfick.—*Supplement to British Medical Journal.*

A Cale of Splenectomy.—Dr. Howard Fussell, of Philadelphia, reports (*University Medical Magazine*, September, 1890) a case of splenectomy in a woman aged 50. She had suffered for about a year from a tired dragging feeling referred to the left groin, and after a full meal had been suddenly seized with severe abdominal pain, with vomiting and purging. A tumor was discovered lying in the left groin and occupying the greater part of the pelvis.

An operation was decided on, but a delay of forty-eight hours occurred before it was carried out. Laparotomy was at length performed by Dr. C. Penrose, who found that the tumor was a displaced spleen, the pedicle of which was twisted. This had caused rupture of the organ. The pedicle was tied with silk and the spleen removed. The abdominal cavity was washed out with hot water, dried and the parietal wound stitched. A glass drainage-tube was inserted. After doing fairly well for a time, the patient passed into a state of stupor on the evening of the first day, remaining so till 1 p. m. on the following day, when she asked for a drink. Almost immediately afterwards she was seized with a general clonic convulsion, and died. The spleen was four times its natural size, rather soft and ruptured in the hilum. The pedicle was in good condition; there had been no bleeding except a clot the size of a walnut in the sheath of the vessels above the ligature. The urine was not examined, owing to a misunderstanding, but the kidneys were apparently quite healthy. Dr. Fussell thinks the result would probably have been different if it had not been for the delay in operating. He gives a table of 105 cases of splenectomy for various conditions. The proportion of recoveries was·57 per cent.—*Sup. Brit. Med. Jour.*

Recovery of a Case of Traumatic Tetanus.—Recoveries from traumatic tetanus are rare enough to make every successful case worthy of record. Dr. Mash, a colored physician of this city, had a case of traumatic tetanus in the person of a boy about twelve years of age who some days previously had wounded himself by stepping on an iron rake. The cicatrix was in the hollow of the foot, all firmly healed at the time of his attack. His convulsions were very violent, and his temperature on one occasion known to the writer reached 105°. There was nothing unusual in the treatment, except that acetanilid was administered to reduce temperature. The patient was kept under the influence of bromide of potassium and chloral hydrate in solution. We have not the notes of the case at hand, but the facts are essentially as here outlined, and he recovered. Several cases of traumatic tetanus have resulted fatally recently in Wilmington, and several cases in quick succession among horses, reminding one of the epidemic character which this disease may assume, as in the armies of the South during the war, and warning is needed to make people more careful to guard against the infliction of wounds in the feet. Next to the careless way of leaving upturned planks with nails in them about where there are children, is that of leaving the garden rake upturned lying about, but any rubbish containing articles with blunt, cutting edges, such as old tin scraps, fish-bones, iron turnings, etc., are dangerous, and in any tolerably well policed town would be cared for. The habit that our Southern boys have of running barefooted from May until November, ought to become obsolete, on the score of economy of life.

TOXIC EFFECT OF CALOMEL IN THE PRESENCE OF CHLORIDES OF THE ALKALIES.—Dr. Paul Adam (*Nouveaux Remèdes*, August 24, 1890) confirms the statements of such authorities as Moll, Hervé, Guibourt, Larocque, Jolly and others to the effect that within the body calomel does not to any appreciable extent go into solution as sublimate. M. Mialhe's assertion that it does, and that the agent in effecting this is sodium chloride, is still current doctrine. Dr. Adam's experiments were made both in the absence and presence of organic matter; in either case only traces of mercury went into solution provided that there was not free access of air. In the presence of air a considerable quantity of mercury was dissolved. The author claims that within the body the access of air is practically *nil*. Besides experiments outside the body, others were made on the living animal which confirmed the above negative statement. *Supplement British Medical Journal.*

XANTHORRHIZA APIFOLIA (YELLOW ROOT) IN STOMATITIS MATERNA.—Though not a cure-all, *Xanthorrhiza*, or yellow root, sometimes relieves nursing sore-mouth entirely, and most always does good. This drug is a discarded article of the United States Pharmacopœia, and owes its present local reputation to midwives in the country, who have resorted to it with a sort of routine confidence and persistency which has led some of our physicians to give it another trial. Stomatitis materna is the opprobrium of the profession, and its mere mention in the sick room sends dismay to the hearts of all interested in the life of the infant, as it means that the baby must be weaned to save the mother's life. It is not strange that physicians and nurses turn with alacrity to anything that sometimes succeeds in the cure of this dreaded disease. *Yellow root* may be procured from any druggist, or from an herbalist. The active principle and coloring matter is berberin, which is hydrastin, although we do not know whether the same effect can be produced by the latter as by the crude drug. By-the-way, hydrastin and alum is having a great run among the advertisers under several names, such as "orange blossom," "uterine pastiles," etc.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS for August, September and October are before us. In this collection we find some of the best contributions of foreign, chiefly English authors, printed in a very acceptable style, twelve numbers for $10. In a recent number of the *British Medical Journal* Dr. Murrell, whose paper on chronic bronchitis is reprinted, complains that the American publishers have not only reprinted his, but other author's monographs without asking permission, or rendering any returns. The absence of copyright law is no excuse for such use of another man's property. We learn that English publishers are guilty of the same violation.

THE MEDICAL NEWS VISITING LIST FOR 1891—Has been thoroughly revised and brought up to date in every respect. The text portion (32 pages) contains the most useful data for the physician and surgeon, including an alphabetical Table of Diseases, with the most approved Remedies, and a Table of Doses, both prepared from Dr. H. A. Hare's new *Text-Book of Practical Therapeutics.* It also contains sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, Diagnostic Table of Eruptive Fevers, Legation of Arteries, and a full descriptive list of valuable Remedies, not yet in General Use. The classified blanks (176 pages) are arranged to hold records of all kinds of professional work, with memoranda and accounts. Four styles are now published: Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month, and good for any year); Perpetual (undated, for 30 patients weekly per year); and Perpetual, undated, for 60 patients weekly per year). This last style, a novelty for the coming year, consists of 256 pages of assorted record blanks, without text. THE MEDICAL NEWS VISITING LIST adapts itself to any system of keeping professional accounts. Each style is in one volume, bound in handsome red leather, with pocket, pencil, rubber, erasable tablet and catheter-scale; price, $1.25. When desired, a Ready Reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and will save many-fold its small cost (25 cents) in the economy of time effected during a year. In short, every need of the physician seems to have been anticipated in THE MEDICAL NEWS VISITING LIST.

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ORIGINAL COMMUNICATIONS.

ACUTE BRIGHT'S DISEASE—A CLINICAL LECTURE, DELIVERED AT THE PHILADELPHIA HOSPITAL.

By J. H. Musser, M.D., Physician to the Hospital.

(Reported by William H. Morrison, M.D.)

Gentlemen, the patient whom I bring before you to-day has been in the house a short time. She has had the usual diseases of childhood. Ten years ago she had an attack of inflammatory rheumatism, attended with fever, acid sweats and the usual joint complications. She has been accustomed to a great deal of exposure, and attributes her present attack of illness to that cause. During the past ten years the general health has been good, with the exception of a slight cough. Six weeks ago, after exposure, the present trouble began. She had a chill followed by some fever, and she then noticed swelling of the face. For some months previous to this there had been slight œdema of the feet. The swelling gradually became more or less general. In the course of ten days there was considerable dyspnœa, and with the dyspnœa there was cough. These were the only symptoms of which she complained. On close questioning, however, we found that from the first the urine has been scanty and highly colored. This was the condition at the time of admission. The quantity was small and there was increased frequency of micturition, which was especially noted at night. It is probable that this was also present during the day. In taking the history of any case of renal trouble, it will be found that one of the first symptoms complained of by the patient is that he has to get up at night to make water. It does not follow that this occurs only at night, but during the day the attention of the patient is not so strongly attracted by it.

On admission, the symptoms of which the patient complained, were still present. There was cough and dyspnœa with dropsy. Some of this still remains, especially about the eyes and upper part of the face. The extremities have been greatly swollen, but under absolute rest the œdema has diminished considerably. In this instance, as in many others of œdema of the lower extremities, there is an eczema of the skin. This is often due to the extreme distension of the tissues of the leg and the consequent interference with the cutaneous circulation, and possibly, also to the increased amount of urea in the blood acting as an irritant to the skin. However, the eczematous condition here is due to applications made by the patient sometime before admission. Not only is the œdema found in the legs, but also in the hands. Here it is slight, and examination of the abdomen and thorax shows œdema of their walls. Examination of the cavities of the body shows transudation of serum into them, as well as in the subcutaneous tissues. In examining the abdomen we find it distended. Its outline is perfectly regular and smooth, and on palpation and percussion we find that there is ascites. In the lower parts of the abdomen, in the flanks, there is dullness, which changes with change of position of the patient, while above there is resonance. Palpation shows the presence of fluctuation. Examination of the pleura and of the pericardium, also show that they contain fluid.

Our attention is called to the kidneys as the probable cause of the trouble. On admission, examination of the urine showed a large amount of albumen, but by the use of rest and certain methods of treatment the albumen has almost entirely disappeared. Examination with heat and nitric acid and by Heller's test shows no evidence of albumen. It may be, then, that, instead of the condition being entirely due to renal trouble, there is some other reason for the general anasarca. I shall proceed to examine her with the object of determining the course of the dropsy.

Examining the heart we find some interesting points. In the first place, there is feeble impulse. The area of cardiac dullness is but slightly, if at all, increased. The apex beat is a little outside of the usual position. On auscultation the first sound is very weak, and at the apex a systolic murmur is heard and transmitted into the axilla. These signs would point to some dilatation. In the fourth interspace I find a friction sound. This is best heard half an inch from the left edge of the sternum. It does not change in character with inspiration and expiration. It is not due to the lung rubbing against the heart. We do not find, therefore, any serious condition about the heart which would be likely to lead to the development of this dropsy. On examination of the lung, there is observed a large amount of pleural effusion in both cavities. As there is considerable ascites, it suggests the possibility of hepatic disease. The liver is neither enlarged nor atrophied, and the absence of symptoms referable to the liver, would lead us to exclude hepatic disease. Anasacra may be due to disease of the blood; it may be that there is an affection of the blood, causing general dropsy. When the blood is impoverished, as by malaria or other conditions, anasarca is likely to ensue. After long-continued drains, as after frequently repeated venesections, the blood becomes so thin and watery that its serum readily transudes into the lymph spaces and also causes dropsy. In this instance there is no reason to think that there is any blood affection. The patient is not at all anæmic, there is no history of malaria or of any other conditions which would cause an impoverished state of the blood. There has been no drain upon the system and no loss of blood.

It therefore appears that the cause of the anasarca must be either the condition of the heart or the condition of the kidneys. The absence of albumen does not necessarily lead us to exclude Bright's disease. Of course albuminuria in the larger number of cases is always present, but there are cases of Bright's disease where there is no albuminuria.

On microscopic examination a large number of granular casts and also of leucocytes were found. If the patient had been seen early in this attack of acute nephritis, in addition to the occurrence of albumen and granular casts, there would no doubt have been found blood casts in the urine. The progress of the illness has, of course, changed the character of the deposit, and we now find only granular casts. I am inclined to think that, in spite of the absence of albumen this morning, the case is one of general anasarca, due to renal disease. There is no cardiac lesion sufficient to account for it, and there are no symptoms referred to the heart. If the dropsy were due to this cause, we should have increased frequency of the heart's action. It would be labored, and in all probability it would be irregular. The action of the heart is perfectly regular and the pulse is about normal, and its character does not indicate weakness of the heart. While the impulse is not strong, we have an explanation of this in the condition of the pericardium. There is no doubt that there is a small amount of serum thrown out in the pericardial sack, which interferes with transmission of the impulse and also of the first sound of the heart.

Does anasarca continue after the albumen has disappeared from the urine? This is often the case. The anasarca may continue for a long time after the albumen has disappeared. In the larger number of cases, however, the anasarca disappears long before the albumen leaves the urine.

I think we are borne out in our judgment, as to the nature of this case, by the occurrence of certain complications which are not usual under other circumstances. Pericarditis is a most common complication of Bright's disease, and in fact is rare in any other affection. The occurrence also of pleural effusion, and especially of pleurisy on one side, points in the same direction. I am inclined to think that there has been here no old renal lesion, but that the affection has been acute from the beginning. I base this opinion upon the condition of the pulse and upon the character of the heart sounds. If the patient were the subject of chronic Bright's disease, there would almost surely have been evidences of this in the general circulation. In the first place, there would probably have been high arterial tension, as shown in the character of the pulse in the sphygmographic tracing and in the character of the heart-sounds. The heart probably would have been hypertrophied, the apex would have been displaced beyond the nipple line and the first sound strong and booming in character. There would have been accentuation of the aortic second sound. In this instance the second aortic sound is very feeble in character, while the pulmonary second sound is comparatively louder than the aortic. Again, there is not that condition of the arteries which appear in the course of chronic interstitial nephritis. The pulse, while full and of moderate strength and volume, does not indicate any degree of high arterial tension.

Bright's disease often, in its acute form, developes so insidiously and in such a variety of ways, that it is important to bear in mind, not only the mode of development, but also the complications which are often found in connection with it. The patient may have been apparently perfectly well until the occurrence of convulsion or the development of meningitis or the involvement of the serous membranes may lead to an examination of the urine and the detection of chronic interstitial nephritis. Such is also often the case in acute Bright's disease. Quite frequently, especially in children, the first evidence of renal complication will be the occurrence of some local inflammatory trouble, due, in all probability, to the circulation of urea in the blood. While acute Bright's disease usually developes, as in the present case, after exposure, and is marked by the occurrence of anasarca, by fever and headache, yet often there is no fever whatsoever, and the first evidence of renal affection is œdema of the face. In children, when it occurs after scarlatina, which is the most common cause of acute Bright's disease in childhood, the first thing observed by the parent will be puffiness of the face. In other instances a violent attack of vomiting and persistent nausea and vomiting may be the first symptoms. This is especially common in childhood. A common accompaniment of the initial symptom of acute nephritis is vomiting. This is not of gastric origin, but reflex in character. In children a convulsion may be the first intimation that the kidneys are involved. The disease is so insidious in its development, and it is so important to bear this fact in mind, that it cannot be too frequently repeated. In fact, there are quite a number of acute affections which occur both in childhood and in old age in which the recognition of their exact nature depends entirely upon the examination of the urine. A low grade pneumonia may, for instance, be an expression of renal lesion. In the same way headache is a result of this condition. This may occur not only in old age, but is frequently seen in childhood. It is usually stated that these conditions are present in the course of chronic interstitial nephritis, but they are also present in acute nephritis.

Had we seen this patient early in the disease, there would possibly have been less difficulty in the diagnosis. I have no doubt that when the disease first began the urine contained blood and a large amount of albumen. The urine sometimes contains so much blood that we have to decide whether we are dealing with a case of Bright's disease or one of hæmaturia. Unless careful examination is made the hæmoglobin may be mistaken for albumen, and you may decide that you have a case of nephritis when it is only one of hæmaturia.

Then again you must be careful to eliminate acute cystitis. Two or three days before anasarca appears the increased frequency of micturition, the slight pain attending the act, and the small quantity of urine might lead one to suspect that there was some bladder trouble. Under such circumstances, unless you make a careful chemical and microscopical examination of the urine, you will often err.

Now, with reference to the treatment: This patient has greatly improved under rest and the use of the mildest diuretic. The first element in the treatment is rest with protection of the body. I always order extra clothing to be used, with flannel next to the skin, and, in addition, a flannel bandage around the waist and covering the kidneys. In children, inunction of the skin may be used to prevent catching cold. This is frequently done after scarlet fever. The character of the diuretics employed will vary according to the nature of the disease and the time that the case comes under observation. In acute nephritis those diuretics should be used that are of the blandest and least irritating character. These should consist of such remedies as have scarcely any influence upon the epithelium, but act upon the blood-vessels. The simplest of these is water. Increasing the volume of blood, by the ingestion of large quantities of water, we compel an increased flow of urine, and hence relieve the kidneys. In addition to the use of water feebly alkaline drinks may be employed. If vomiting is a marked symptom, carbonic acid water may be used for its local effect upon the stomach. Water, to which a small amount of bitartrate of potassium has been added, answers a useful purpose. In the earlier stages the only medicinal diuretics besides the alkalies which are of service are those which act upon the blood-vessels alone. Prominent among these is digitalis, which may be given in several ways. Five drops of the tincture may be administered every three or four hours, but a better method is to give the infusion in table-spoonful doses four or five times a day. If, however, as frequently happens, there is such serious complications, such as coma, that drugs cannot be given by the mouth, digitalis may be applied externally in the form of digitalis poultices. The leaves are mixed with ordinary flax-seed, made into a poultice, and applied over the renal region. The poultice should be six or seven inches square, and should be applied hot. It should be changed every four hours. Under such circumstances you do not wish to stimulate the kidneys. You want simply to relieve the engorged blood-vessels, and by increasing the blood-pressure and flow of urine, wash out the tubules, and in that way afford relief.

There are other means by which this same object may be accomplished. As we have already said, in all cases of Bright's disease there is more or less high arterial tension. If this high tension can be relieved, not only in the peripheral circulation, but also in that of the kidneys, we shall have one means of relieving engorgement. For this purpose drugs are used very largely. In the first place, we have nitro-glycerine, which is very effective in relieving high arterial tension. It may be administered in doses of one drop of a one per cent. solution. There are other drugs which may be used for the same purpose. Under certain circumstances, where there is coma or convulsions, nitrite of amyl would be of service. There are certain local applications which may be used. Where the urine is scanty and micturition frequent, the use of dry or wet cups frequently increases the secretion. The congestion may be lessened in other ways. Diaphoretics and cathartics are of service. The character of the cathartic employed would be determined by the condition of the patient at the time. If there were marked uræmic symptoms you would desire prompt catharsis; this must be obtained by the use of some drastic purge such as croton oil. In some instances where you wish to obtain speedy relief in this way preparations of mercury are of service; calomel in one-eighth to one-quarter of a grain doses, every half-hour or every hour, will cause catharsis, and it also has a diuretic effect. In smaller doses, as the one-sixteenth of a grain, frequently repeated, it will be followed by increased flow of urine. I recall one or two instances of acute Bright's disease with albuminuria and general anasarca in the course of pregnancy, in which very good results were obtained by the use of the proto-iodide of mercury. It may be administered in doses of one-quarter of a grain every hour. This not only often increases the quantity of urine, but also produces free catharsis and often averts impending danger.

Diaphoresis should also be induced by the simplest means possible. Alkaline diaphoretics, such as neutral mixture or spirits of mindererus may be used in those cases which do not require prompt action. Where, however, the case is urgent, such diaphoretics must be used as produce copious perspiration. Jaborandi stands at the head of these. It may be used in various ways. A poultice of jaborandi leaves may be employed. The drug is often given in infusion, and if it does not produce nausea or vomiting, this is perhaps the best way to administer it. The fluid extract in doses of from one-half to one drachm is a preparation also frequently employed. Much care must be exercised in the administration of jaborandi, for it is a powerful depressant, not only on the general system, but especially on the heart. Digitalis and stimulants should accompany the use of jaborandi. Half a drachm of the fluid extract of jaborandi with ten drops of the tincture of digitalis may be given together, or digitalis may be substituted by one-half to one ounce of whiskey. In this way the depressing effects which follow its administration and the profuse diaphoresis which is induced by it are obviated. The alkaloid of jaborandi is one of the useful preparations. It has the advantage that it can be given hypodermically as well as by the mouth. Nitrate of pilocarpin administered in one-eighth or one-quarter grain doses will be followed in the course of a half hour to an hour by copious perspiration.

Finally, there is another mode of producing diaphoresis which is valuable, and this is by the use of the hot air bath. This method can be readily used under any circumstances. The patient may sit over a chair and be covered with a blanket, forming a sort of a tent, and then have a lamp burning under the chair. This will in a short time produce free diaphoresis. If the patient be in bed, the clothing may be raised and the hot air be conducted by a tube from a lamp. This is one of the simplest and best ways of using the hot air bath. It is unaccompanied by the depressing effects which follow other diaphoretics. It is therefore one of the most valuable.

In the treatment of acute Bright's disease rest in bed with warmth to the exterior and those remedies which relieve engorgement by drawing the blood into the peripheral circulation, are to be employed. Then diaphoretics and diuretics of the blandest character must be used. If necessary, cathartics may also be given. By a proper use of these remedies you can often relieve symptoms which at first sight appear to be most urgent.

INTUBATION WITHOUT GAG OR EXTRACTOR.—Mr. Guido Bell, of Indianapolis (*Journal of the American Medical Association,* August 30, 1890), writing on intubation of the larynx, says that he has now discarded both the gag and the extractor. The child being seated on an attendant's lap, he passes his left index finger into the mouth and behind the root of the tongue. On this the little patient "gags," and the larynx rises to the operator's finger, when the tube is at once pushed into the larynx with the right hand and kept in place for a moment with the left. The thread is then fastened to the patient's cheek. The advantages of this method, according to Dr. Bell, are that no assistant is required, the child is not excited and does not dread a repetition of the operation, and the tissues of the pharynx and larynx are not injured by sudden movements of the patient. Dr. Bell states that the child's glottis gives to the finger much the same sensation as the os uteri. If it feels "smeary," the suffocation is said to be due to membrane rather than to œdema. Dr. Bell has intubated in the way described over a hundred times, and has been successful in introducing the tube at the first attempt except in two or three "asphyxiated cases." He removes the tube without an extractor by simply grasping the larynx externally with the fingers and pressing it out. Dr. Bell has done this in five cases in which removal with the extractor had completely failed. His estimate of intubation is not very encouraging; he says it has not very much increased the percentage of recoveries in his practice, and most of the little patients have died.—*Sup. Brit. Med. Jour.*

THE CASE OF THE INSANE OF OUR STATE OUTSIDE OF THE ASYLUMS.

By JAMES A. HODGES, M.D., Fayetteville, Member of the North Carolina Board of Health.

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For the care and cure of the insane in our State there exist three Asylums—two for the white and one for the colored population.

These institutions in the past have accomplished a grand and beneficent work for humanity. As far as their limited capacities would allow, they have done much to relieve the sum of human misery, especially that most dreadful form in which reason is dethroned and the passions have supreme sway, and in which that most sensitive and complex organ of the body, the brain, is the one diseased.

The value of asylum treatment cannot be estimated. Insanity is the most distressing disease that is known to man, and the most far-reaching in its dangerous and damaging effects upon society at large. When a cure is effected the results are perceptible and easily recognizable by all, but the benefits, both direct and indirect, accruing to those whose minds are more darkly shrouded and upon whom the sunlight of reason may never break to dispel the dark midnight of gloom, are incalculable and all but incomprehensible. In the environments of a well-ordered institution the laws of hygiene are intelligently and rigorously enforced, good air, good water, good food, sunlight and cleanliness are all secured and maintained.

The treatment pursued is under the supervision of skilled alienists assisted by experienced attendants. As a result, the physical powers are kept at their highest standard, and, consequently, the nutritive disorders of the brain are likely to be vastly and permanently improved. By well-directed regulations and in well-appointed apartments, the poor sufferer, sick in mind and body, is soothed and quieted, his pain assuaged and his specters banished. Likewise the bereaved and sympathizing friends at home are relieved of care and trouble and anxiety, for they are conscious that, under the protection of the Asylum, the tottering and enfeebled intellect of their quondam patient is being skilfully and intelligently treated; that his weak and diseased body is being cared for; that the possibility of accident or crime will be prevented, and that, if possible, renewed life and vigor and perception will be instilled into that once dull and leaden brain, and the glad light of reason and intelligence once more flood that suffering soul.

Since the establishment of the North Carolina Insane Asylum, the oldest of our institutions, there have been, according to their last report, 540 recoveries recorded among its patients. These, if left to themselves in their state of mental aberration, according to the usual reckoning, would have dragged out an average of seventeen years of useless existence, entailing upon the State, the county or personal friends the aggregate of 10,000 years of misery and insanity to be paid for out of somebody's wealth! On the other hand, being cured, 16,000 years of usefulness, allowing an average of twenty-nine years, according to statistics, after recovery to each patient, has been gained and will be preserved for the benefits and uses of society. In addition to this number of 540 who have been restored to society, and thus made producers and tax-payers, instead of encumbrances, as formerly, fully one-half as many more have been returned to their homes improved in bodily and mental health.

These, gentlemen, are some of the advantages and benefits resulting from Asylum care and treatment. But under the present regime in our State the largest number of our insane population are not cared for in properly constituted asylums, but are detained in the county jails and poor houses, and it is our duty to enquire into the conditions there surrounding them and the methods there practiced in their care and treatment.

The jails, as all are well aware, are ill-adapted for the purposes of an asylum, and, to the credit of humanity and the spirit of the age, be it said, that only urgent cases are confined in them, and for the shortest possible time consistent with the circumstances. The poor houses are more extensively used for asylum purposes, and, taken collectively all over the State, they present a vivid picture of misery and horror. As a class, they are a disgrace to civilization and humanity, and could more properly be designated as *pest houses.*

In most cases the buildings are dilapidated, cheerless and poorly lighted, constructed without plan, and patched by additions and repairs. It is to be regretted that such squalid institutions should ever be allowed the custody of the insane even for one moment.

In the common diseases to which "flesh is heir" there are known in our present state of knowledge, three classes, according to the results of therapeusis: First, those forms of disease whose tendency is to recover without treatment, or in spite of bad treatment; second, those which are incapable of cure by any known methods of treatment; and third, a small number of cases which depend solely on the treatment. If this be true of diseases as seen in every day practice, how much truer must it be of diseases of the mind, where the body's most highly delicate and sensitive organ is implicated; and what hope of benefiting, much less curing these mental diseases, is there to be held out to these suffering ones, especially under such circumstances and in such surroundings as are offered in county poor houses? What are the facts, then, as regards the care and treatment of the insane in these institutions?

1. There is no system of classification as to the kind or degree of mental derangement. The patients are thrust away by themselves into wretched outbuildings, and are herded together as so many beasts of the field—the curable and the incurable, the harmless and the violent; the one by association with the other delaying each other's recuperation and recovery. The filthy are, too, often thrown with the decent, the aged and enfeebled with the young and strong; and if, as a result, a patient is found with a broken limb or blackened eye, no cause for it is assigned and no record is kept!

2. No alienists are connected with these institutions. The patients, while needing constant medical care and attention, are only visited once a week, or month, perhaps, by under-paid physicians, whose salaries, according to the State Board of Health, average less than $300 per annum, and besides these duties they are expected to attend, free of charge, all indigent suppliants who may desire their services.

3. The attendance is insufficient and inexperienced. The number of attendants will average one to every twenty patients in the poor houses; but this does not represent the actual state of affairs, even, for generally the only attendants are the more active and able-bodied paupers who often perform their enforced duties in an unintelligent manner and always grudgingly, because they feel and recognize that the duties are an imposition. The quality of this service should be

of a superior order, for most cases require constant care and attention, and this does not apply to the dangerous and destructive cases only, but to the broken down and enfeebled as well. As a consequence of this arrangement but little attention is given to the patients during the day and no supervision at all is exercised at night; for, retiring to their own apartments, which are far removed from this "madding crowd," the attendants wrap the drapery of their couch about them and lie down to pleasant dreams, oblivious of the shrieks and frenzies of these unfortunates, to whose fevered brains "nature's sweet restorer" never comes to soothe and quiet by her gentle wooings.

This lack of humanity requires no comment; *it is disgraceful beyond palliation!*

4. There are no hospital arrangements. Every well-appointed institution for the care of the insane should have proper accommodations for the acutely sick as well as facilities for bathing, together with means of occupation and amusement. In the county poor houses no especial care is given to the sick. It is sufficient excuse for the heartless attendants to know that their patients are under the ban of mental disease, and that their minds are too feeble to take cognizance of the sorrowings or note the lack of attention. They console themselves with the comforting thought that, being insane, the patient can never recover, and they thus preserve a "masterly inactivity," stopping their ears and closing their eyes to the agonies of sorrow and suffering all about them. In the matter of bathing, it is a recognized necessity that there should be an abundant supply of pure water in every asylum where the insane are confined; yet, as a matter of fact, this is a point in the treatment of lunatics in county asylums which is essentially defective. As insane people frequently suffer from ulcerations of the body and other skin affections, cleanliness is imperatively necessary, but, instead, the repulsiveness of the filth too often seen is horrible to look upon. What Superintendent of Health in this audience can say truthfully to-day that he has one single raving lunatic in his county asylum under his charge that is as neat and cleanly as he should be, if comfort and health are to be promoted thereby?

5. There are no proper sleeping accommodations. Insane people require more sleep than persons of healthy minds; but in our county institutions this desideratum is incapable of being realized, first, on

account, oftentimes, of the noisy surroundings, and secondly, because of the uncomfortable arrangements for sleeping. The hard bare floor too often suffices, alas! for pillowing the aching head and resting the cramped and tortured limbs; and if there be any beds, these are generally the homes of countless hordes of vermin, and too vile for description.

6. There are no adequate heating facilities. But few counties have devised adequate means for distributing heat in the wards of the insane patients that are confined, and, as a result, some, if not all of them, being ill-nourished, poorly clothed and helpless by reason of physical infirmities and mental weakness to aid themselves, must suffer in the miserable apartments, provided the pangs of an unutterable existence, exposed as they are to the cold blasts of winter's storms and tempests.

7. There is no regular dietary prescribed. The food which these poor wretches are expected to eat is oftentimes abominable, and it is a known fact that a wholesome and nutritious diet is of the greatest importance in the treatment of the insane. Besides, the food furnished is often regulated for those who are well and sick alike by some attendant of the poor house, or perhaps even by the cook of the institution! It is thrust through an opening into the cell, it may be, and left there to be consumed or not, at the will of the babbling maniac or helpless imbecile! Salt pork is allowed once or twice a day, salt mackarel once or twice a month, perhaps, throughout the year, with a little rice or beef occasionally as a toothsome *entrée!*

Despite the fact that farms are attached to most of the poor houses, vegetables are not grown in sufficient quantity or variety to offset this hard diet.

The sole object of the Superintendent seems to be to screw down expenses, and thus curry favor with the county commissioners, even if his poor and feeble charges do suffer and starve!

8. There is no suitable provision for refractory patients. The dominant idea seems to prevail in these institutions that all being alike bereft of reason, all should receive the same routine treatment. However, it sometimes occurs that the more violent have to be more forcibly restrained, and these are either confined in a jail or darkened cell. Restraint is applied at the will of an untrained attend-

ant when in his judgment it is deemed necessary. This sounds like a tale of feudal times, but it is true, nevertheless.

"Does the patient disturb others?" then the mandate goes forth, "narcotize him, or muzzle, or manacle him." If that be impossible, he is very probably removed to the jail building, where others like himself are confined in the various stages of insanity, and where the genius of Pandemonium reigns supreme. There, his sick and fevered brain, haunted before only by his own phantasmagoria, "beholds now materialized the most hideous spectres of his imagination." And it is doubtful, indeed, if any one in wildest delirium has ever seen aught to compare with the waking nightmares experienced in some of these poor house jails.

Such, gentlemen, are some of the evils in county asylums as illustrated in some of our poor houses. This picture is not overdrawn, but its every feature and outline is perfect, and is fashioned without an artist's skill from the scenes of real life as portrayed in our county institutions. Here all laws of hygiene are disregarded, and no attempt at proper treatment even undertaken—all are treated alike, and the wild maniac, the unkempt epileptic as well as the chronic incurable, are all subjected to the same condition and surroundings, each constantly a hindrance to the other in improvement and restoration to health. Above all, the greatest sin and crime that can be attached to these institutions, as they now exist, is that acute curable cases, those which under proper and skilled treatment would recover in from three weeks to three months, are here detained until, by association, they are placed beyond the pale of curability. Who among you has ever known a case of insanity, of any kind or degree, to recover after being entrusted to one of these institutions? I ask you, who?

To the shame of the State, also, be it known that many insane have been detained in the walls of these asylums for long years, either from ignorance or neglect on the part of the attendants or superintendents, one case in my knowledge languishing in the county institutions for thirteen years before being sent to the asylum for treatment.

From the above it is evident, then, that in the asylums already existing, and in the county institutions as at present administered, there are grievous evils. What are these evils? (1) Overcrowding in the State asylums, and (2) as a result, the detention of insane patients in jails and poor houses. How can the first evil, and, as a natural consequence, the second, be explained? Simply and solely because of the State's brutal parsimony in the past in not providing needful buildings for the reception and treatment of its increasing insane population.

Is there now only necessity for this step? Let the records speak for themselves. The three existing asylums in this State are capable of treating comfortably and skilfully about 900 patients. To the Western Asylum are assigned 40 counties, and to the North Carolina Asylum, at Raleigh, 56 counties—in this latter division, known as the Eastern Division of the State, there are said to be, according to the last report of the President of the Board of Directors of the Raleigh Asylum, about 1,000 white insane, while the Asylum is only capable of treating, at most, 250 patients. There are, consequently, in this Division alone, four times as many white insane, not to mention the colored, unprovided for as are now cared for by the State in this Asylum; or in this division alone equally as many as are now in all the asylums. It is a fact, too, that in all of the asylums nearly three-fourths of the patients are chronic cases who thus occupy the wards to the exclusion of others who might fill their places and again become producers and taxpayers. From some of these institutions, as a consequence, comes to us the reply with every new application, be it urgent or not, that they are overcrowded, and that our patient must wait, yes, wait and die perhaps; or, what is worse, sink into incurable insanity with its attendant train of living miseries! These are startling facts and must fill every right-thinking citizen's mind with shame as well as anxious thought and enquiry. It shows, beyond all dispute, that the State is not doing her duty towards her helpless insane, and that the largest number of this unfortunate class are now unprovided for, except in the most frugal and parsimonious manner, as proved by the system of county asylums, of which we have spoken.

The recent action of the Executive Committee of the North Carolina Insane Asylum in ordering the county officers, according to law, to remove their harmless and incurable insane from that Asylum, will be a telling object lesson to the citizens of this State. It is true that we recognize the justice of such an action by the officials, but it is nevertheless a crying disgrace to our State and its advancing civilization that there was need for such action, and that the legislators in the past, in their short-sighted wisdom, ever attempted to remedy *such* evils as the existing ones in *such* a manner. The ignorance and inhumanity of the State in this matter will be seen and felt as never before, and a loud cry of indignation will go up all over this land against the State government, which has failed in the past to give relief, and which to-day can consequently present no solntion of this important subject, for it has no policy outlined except the despicable one just mentioned, and can offer no provision to meet the growing requirements of this class of its unfortunates who have equal rights with all other citizens of their State. What shall be the remedy?

The only remedy now remaining for this evil of "overcrowding" in the asylums, and consequently the necessary detention of the insane in the county poor houses, is to educate the masses to the existing state of affairs and to demand of the coming Legislature the State's aid in erecting more commodious apartments, so that all sufferers from mental diseases may have like advantages of skilled treatment and supervision.

As I have already endeavored, in a general way, to show you, the present system of detaining the insane in jails and poor houses, which for better means is at present our only reason, is attended with many and grievous evils. That you may know more concisely and accurately the present status of affairs, and may more readily perceive the necessity of enlarged capacity in asylum treatment and more pertinently judge that the whole system of county charity, like that of the State, is based upon a niggardly and parsimonious economy, I would invite your attention to the following statistics as collected and compiled by my friend, Capt. John B. Broadfoot, of Fayetteville, a director in the North Carolina Insane Asylum, and a young man who, having recognized the necessity of this unfortunate class of our population, and being zealous of having some wise and humane provision made for them, is the first to get absolutely accurate information on this subject. The result of his labors, as thus far completed, I will now present:

Forty-three counties were heard from, and the total number of insane in them, outside of the asylums, as reported, was 373, or an average of 8½ to the county. This is certainly a low estimate, for nearly every correspondent wrote that they had no means of determining the exact number, but would report only those cases which had come under their personal notice, which was always, of course, but a part of the whole. According to the same ratio the 96 counties would contain 816 insane outside of the State asylums. The largest number were in Johnston, 26; the next largest number were in Union, 24; several have from 15 to 20. Ashe, Burke, Clay, Davidson and Pamlico have none. The western counties report the smallest number. The insane in these counties are distributed as follows: In poor houses, 140; in jails, 17; outside of county institutions, 216. According to sex: Males, 181; females, 192. According to race: Whites, 258; colored, 115. Macon and Clay have no poor houses.

He also submitted the three following questions:

1. Average duration of confinement of insane in county institutions? The replies to this question were so unsatisfactory that no satisfactory average could be arrived at, no records having been kept in many instances. From statistics received, however, we infer that eight years is the average duration of confinement.

2. Have you the proper means of confining and treating the insane? To this question every county heard from answers, emphatically, "No!" except Watauga, whose Superintendent of Health answers, "Yes," and that the *per capita* cost of maintaining the insane in his county is $48 per annum; that is, $4.00 per month, $1.00 per week, or 14 cents per day—think of it! Does it not seem incredible that a human being could be lodged, clothed, cared for and fed for a twelve month on so small an amount? Your horse, indeed, could not be stabled for twice that sum.

The replies to some of these circulars are revelations, indeed, and the tale of agony told is all but heartrending. Listen, for instance, to the following: "We have tried to get some of those at large into the asylum, but have failed. Those who are at large are treated mostly by myself without compensation—is it right?" Or listen to this: "We haven't any insane in jail or asylums from the fact that commissioners will not allow a physician any fee for examining insane patients, and they cannot be admitted without examination. I have been informed that in one instance an insane patient was charged with larceny in order to have him admitted and confined in jail. Our insane are sadly neglected. I have reported only one case, but I have no doubt there are several cases, but *as they do not receive any attention* they are not reported." Or another: "There are at present no lunatics in the jail—until this year from 1 to 3. They are confined in a small log house with no windows and no heat; have seen one poor fellow nude in the coldest weather without any means of heating his room; I remember one case where they had no room in the poor house and the Superintendent chained the patient to a staple in the centre of a room by the leg, and as a consequence she suffered with sores to her death."

3. What is the average cost of maintenance in county institutions? From the statistics received the average cost of maintenance in county institutions per year was found to be $85.78. These figures are suggestive, and while they give the lowest possible estimates in every case, still the information is startling, indeed. They prove, in the first place, that the insane already provided for by the State, numbering 900, are less in number than those unprovided for, amounting to over 1,000; and in the second place, that the average cost of maintenance in the county institutions, which is $85.78, is owing to cruel parsimony; but small as this amount appears at first view, it is yet a large expenditure *per capita* in comparison with the general average of the three asylums in this State, which is $168.08, when it is considered what are the comparative benefits gained in the two systems, the former. i. e., the county cost, being almost solely for food, while the latter, i. e., the asylum cost, includes not only food, but skilled treatment and attention with all their blessings. The mere cost of food in the State asylums is as little, if not less, than the estimated cost in county institutions.

If the *per capita* cost of $85.78 in the county system be compared with the *per capita* cost of the Goldsboro Asylum, for instance, which, although for the negro population, still has all the asylum advantages, and which is but $116.75, it will be seen that there is an excess of but about $30 per annum; or, to put it differently, the cost *per capita* in the Goldsboro Asylum is $9.75 per month, which includes all the benefits and privileges of asylum treatment, against $7.50 *per capita* per month in the county institutions with no treatment nor privileges nor comforts at all.

The comparative average cost of similar institutions in New York State is $18 *per capita* per month in the asylums, against $6.80 *per capita* per month in the county institutions. Without further amplification, I leave you to the consideration of these facts and figures, that you may determine in your own minds which of the two systems, both costing about the same, all things being included, is to be preferred.

As a matter in near relation to this subject, I would also bring to your attention the fact that two other classes of our population are not properly provided for by law, namely, inebriates and idiots. The former can only be treated in our asylums when they are adjudged lunatics, and the latter, who will always be a burden to the State or to friends, have no suitable and separate provision made for them. Under proper treatment many inebriates could be rescued from insanity and made once more, and oftentimes in a short period, self-supporting individuals. It is an urgent necessity that something should be done at once, also, looking to these classes of our citizens.

Now, as a solution of this problem, in all its phases, I offer the following recommendations for the consideration of the Society :

To appoint a Conference Committee consisting of twelve members, viz: the Superintendent of each of our three Asylums, 2 Directors from each Asylum, and 3 Physicians from the State Board of Health, whose duty it shall be to go before the Committee on Asylums at the next approaching General Assembly and urge the passage of a bill which shall have for its object the relief of the insane of the State outside of the Asylum.

If the State cannot be induced to make suitable provision for all of her insane as she should do, the counties, each for its own, must, and I believe will; but we will wait and hope for better things. We cannot believe that this proud State, mother of us all, will allow any of her children to suffer and to sink into degradation and crime and misery, when with her beneficent hand she can elevate and ennoble and enlighten them. When the existing and appalling facts are brought forcibly and persuasively to her attention by the intelligent masses of our people, she will not for long continue to smirch her fair escutcheon with so foul a blot, nor stand forth in the galaxy of nations as the land "that careth not for her own," but rising above the seas of ignorance and prejudice, she will shine forth in the plenitude of her munificence, and send out the glad rays of beneficence and intelligence into every home in our fair land.

In furthering and accomplishing this grand work for humanity it devolves upon us, especially, as physicians and scientific men, to educate the public mind to the pressing needs of this unfortunate class of which I have spoken, and the State's responsibility to care for such in a manner becoming the advanced civilization of the day. By training, by knowledge and by experience we are aware of the facts and necessities of the case, and with our individual and combined influence we could arouse the legislators of the approaching General Assembly of North Carolina to honest, earnest and conscientious action in behalf of the insane of our State.

It should be no idle dream of an enthusiast which should actuate us, neither should it be a selfish motive nor a maudlin sentiment that inspires us, but, instead, a true love of our State and a righteous regard for her citizens and their vested rights, our battle-cry being: Help for the Curables, Hope for the Incurables.

THE CONNECTION OF ACUTE PNEUMONIA WITH EXTERNAL INJURY.—Dr. Heimann (*Berlin klin. Wochenschr.*, October 6th) gives a case from his own practice in which a fall was followed by pneumonia and a certain amount of pleurisy in the person of a weaver, aged 56, who fell down a flight of ten steps on his right side, causing contusion of his right hip and thigh and the right side of his thorax, especially between the sixth and eighth ribs, but no ribs appear to have been broken. He was confined to bed, and soon recovered from the injury both to the lower extremity and the thorax, but five days later complained of sharp pain in the right lower chest, with shortness of breath and thirst. The temperature rose to 104° F., and dulness with bronchial breathing, sonorous râles, and friction sound over the lower lobe of the right were detected. The pneumonia resolved in sixteen days, but the pleurisy remained, giving rise to some dyspnœa, and the patient claimed a pension from an accident fund on the ground of the lung lesion being the result of an accidental injury. Dr. Heimann discusses the possibility of pneumonia arising in this way, in the same way that osteomyelitis follows external injury. He gives an instance of tuberculosis supervening on an injury to the chest wall from a stone falling on a man, who died of phthisis dating from the accident. In the weaver's case, the accident fund took the view that the pleuropneumonia was due to the accident, and awarded him a liberal pension.—*Sup. Brit. Med. Jour.*

SELECTED PAPERS.

THE SURGICAL TREATMENT OF UTERINE MYOMA.

Read in the Section of Obstetric Medicine and Gynæcology at the Annual Meeting of the British Medical Association, July, 1890.

By Lawson Tait, F.R.C.S., Professor of Gynæcology in Queen's College, Birmingham.

At the Cardiff Meeting of the British Medical Association (1885) I read a paper on the modern, and, as I ventured to add, the rational treatment, of myoma. In that paper I first of all showed that the method of treatment of this disease by the removal of the uterine appendages is an operation with a very low primary mortality. I gave a detailed list of cases operated upon since January 1st, 1884, 58 in number, without a death. The series preceding that consisted of 50 cases, with 2 deaths. I have since published another series of 219 cases, with 4 deaths. The three make one series of 327 consecutive cases, with 6 deaths, giving a percentage of mortality of 1.8 per cent.—a mere bagatelle of risk, and far less than the mortality of any other serious operation in surgery.

The primary mortality amply justifies the trial of this operation as a method of treatment of a disease which is painful, exhausting, and frequently fatal, but the establishment of the operation as a permanent addition to our surgical resources depends upon the ultimate and permanent effects of it, and these effects I now propose to prove in a way which has never before been done for any other surgical proceeding, and I venture to say they will be found most satisfactory.

I have already shown for a large proportion of my cases the satisfactory results obtained, and after I have displayed the same for the rest of my series, I think it will be admitted that I have proved my thesis *usque ad unguem*, and that nothing further will be required in future.

For the statements concerning a few of the patients I am personally responsible, but the vast majority are made on the evidence of entirely independent witnesses, whose evidence is given in detail and in their own words, generally somewhat condensed, in order to minimise the space required for its production.

In order to save the time of such of my readers as do not care to wander through the mass of interesting detail, I may anticipate the evidence by what I have to say concerning my conclusions drawn from it. First of all, let me say that as each case can be easily identified in the following list with its corresponding publication in my previous papers and in my book by means of the dates and names of place of residence and of medical attendants, the old clumsy method of criticism—that my statements are untrue and my figures not to be relied upon—is at once rendered harmless. The method I employ makes it easy to test every case, and that is a method in striking contrast to that adopted by some of those who deal with the electrolytic method of treatment of myoma.

In Keith's recent book the cases are so reported that they can be with difficulty identified, as, for instance, on page 207 I recognize the narrative of a patient upon whom I performed a successful hysterectomy only four months after she left Keith's hands. In reading his account of the case an impression might be gathered that electrolysis was successful, but it was not—not even in giving temporary relief. Scattered through his pages are other instances in which I fancy I can identify patients upon whom I have successfully operated after the galvanic current had been used, but his method of record is such that no certainty on this point can be arrived at.

The present series consists of 215 cases (219, less 4 deaths) whose lives have now extended, with a few exceptions, to a period of at least twenty months since the operation. The history of many of the cases would prove that this period is not long enough to decide in any case where the progress is unsatisfactory that it will ultimately prove a failure. In the great bulk of the cases the process of cure begins at once, and is practically completed within six months. This is true of a least 90 per cent. of the cases, whilst in about 6 per cent. of the cases the cure is protracted over a period varying from twelve to thirty-six months.

Of the whole series of 321, there are only five complete failures, that is, where the symptoms have been in no way relieved, and where the tumor has gone on growing, that is, the failure has been about 1½ per cent. But so far as the evidence yet to hand goes, the fault lies not in the operation, but in the imperfect way in which it was done.

Three of these failures have already been submitted to hysterectomy, and in all of them I found I had removed the ovaries completely, but in all of them one tube had been incompletely removed.

"Very careful examinations of the tumor were made, and we came to the conclusions that there was no aperture on the right cornu of the uterus, and that there was no trace of the right ovary or the tube. The aperture on the left cornu of the uterus was large enough to admit a No. 5 catheter, and there was more than two inches of the left Fallopian tube outside, which had not been removed at the original operation. No trace could be discovered of the left ovary. This ovary fortunately I had preserved, and when I re-examined the organ, which had been removed on January 4th, 1882, I found that its removal had been quite complete, but that only about one inch of the outer part of the Fallopian tube had been removed with it. Here, then, we have had an extremely curious condition. The appendages on the right side were congenitally absent. The failure of the removal of the uterine appendages to arrest the growth of the tumor had always been regarded by me as due to the fact that the tumor was one of the soft œdematous myomata, and the case is alluded to in my recent paper in the *British Medical Journal* as being the only real failure in my experience up to the date of that paper. Now, the evidence is to the effect that the failure was due, not to the peculiar nature of the tumor, but to the fact that I did not completely remove the only Fallopian tube which the patient possessed. In speaking of cases of myoma I have repeatedly referred to three cases in my experience where I have failed to arrest the growth of the tumors by removal of the appendages. In all these three I have regarded the reason of this failure as being due to the variety of the tumor—that of the œdematous myomata. In this, the first of the three cases in which I have had an opportunity of verifying the accuracy of my opinion, my view of the tumor has been correct, but it seems to me far more probable that the failure of my first operation was due to the incomplete removal of the tube than to the intrinsic quality of the tumor. I need not point out that this case goes a long way to show that removal of the ovaries has nothing to do with the brilliant results of these operations for bleeding myoma. As I have often said, in many cases I have deliberately left the ovaries, and yet success has been perfect. In this the ovary was absolutely removed, and the operation failed. This case is one of 13 patients to whom I alluded in a speech made to the British Gynæcological Society. I hope to be able still further to reduce the list after such an encouraging experience."

The two others (1,207 and 1,284) are coming back for the same purpose, and if I find that similar mistakes in the operation were made, then I am entitled to say that the operation has had no failures at all, but that the operator has had 5.

One case (Dr. Halliday Croom's, 1,314) may be reckoned as a failure, but the evidence is incomplete as there was no post-mortem examination, and I am disposed to believe that it was rather an instance of mistaken diagnosis than of failure, and that the patient was suffering not from myoma but from endometric cancer. In my whole series there have been three such mistakes (less than 1 per cent.), and I do not see how they are ever to be entirely avoided. They certainly must not be put down to failure of the operation.

Of incomplete or unsatisfactory results I have to indicate 5 cases. Two cases died respectively seven and eight weeks after their recovery and after leaving my care, the deaths being returned in both instances as due to typhoid fever. In one case (1,662) the patient died six months after the operation from the condition of extreme anæmia into which her hæmorrhage had reduced her. It will be seen that her medical attendant expresses a strong opinion that a complete cure was not reached only because the operation was done too late. The remaining cases (1,803 and 1,971), with unsatisfactory histories, are two which I fear might be put down as deaths due to the operation, if we knew the full facts of the endings. In the first case recovery from the operation was perfect, yet she died instantaneously—probably from heart-clot—when on her homeward journey, and after she had been going about for nearly a week; and in the other suppuration in the right inguinal region was the indirect cause of death seventeen months after the operation, and this probably originated indirectly from the operation.

This leaves 311 cases in which complete cures have been effected—that is to say, in which the symptoms have been satisfactorily relieved—where the tumor has either entirely disappeared or has so diminished or has been so satisfactorily arrested as to be no longer a source of anxiety or trouble, and where the main feature of the disease, exaggerated menstruation, has been completely and permanently arrested.

Upon the subject of the applicability of this operation—removal of the uterine appendages for the treatment of a certain class of uterine myoma—I have been in hesitation for some considerable time. At one time I had almost made up my mind that for the treatment of the soft œdematous variety it would not prove available, but I have had abundant proof of late years to alter that opinion. There can be no question that in young subjects removal of the appendages is as efficacious for the soft œdematous solitary variety as it is for the multinodular hard variety; and of the 5 cases in which failure has taken place, only 2 belong to the soft œdematous order; the other 3 belong to the multinodular. The only objection, however, that I find to the performance of this operation is the occasional difficulty of its completion, and this, of course, is a matter which will vary in the hands of different operators according to their individual expertness. One man will fail to remove the appendages in a case where another will succeed. There can, however, be no question that there will always be a certain proportion of cases in which removal of the appendages will be practically an impossibility. Looking over the list of cases in which I have performed hysterectomy during the period over which the present list extends, I think that the present proportion of cases where I have been unable to perform the operation of removal of the appendages, and have had to complete the case by hysterectomy, amounts to about 4 per cent. In a considerable number of other cases I deliberately performed hysterectomy on account of the enormous size of the tumors, having the belief that the removal of the appendages in such huge masses would be almost as risky as removal of the masses themselves.

I have also deliberately performed hysterectomy in growing œdematous myoma where menstruation had ceased, as in such cases removal of the appendages was manifestly contraindicated.

Concerning the disappearance of tumors after the removal of the appendages and the arrest of menstruation, there can be no doubt whatever that the youth of the patient has a great deal to do with the activity of the process and the extent to which it is carried out. I cannot give the figures which will yield an exact indication of this result, but I think it may be very fairly expressed as follows: That under 40 years of age about 70 per cent. of the tumors entirely disappear. Between 40 and 45, as a rule, they do not disappear entirely, but become markedly diminished, and after 45 the diminution is only a shrinking, running between one-third and one-sixth of the bulk of the mass. There have been in my experience, however, remarkable exceptions to this latter conclusion, as I have seen a tumor much larger than an adult head disappear in a woman between 49 and 50 after the operation. The ages of many of the patients on the list will indicate very clearly the erroneous belief which exists in the professional mind that the approach of the age at which the menopause usually takes place gives anything like certain relief in cases of myoma, for no fewer than 9 of the cases were upwards of 50 years at the time of the operation.

A curious result was obtained in 3 of the cases during the process of cure, a result which might have been anticipated as likely to occur in a certain proportion of cases, but which came upon me as a surprise. It was that during the absorption of the tumor, a piece, which I assume had had an intrauterine existence as a polypus before the operation, came to be extruded as the accomplishment of that process became possible after the absorption of the main bulk of the tumor. The polypus, as it were, formed a remnant in the cavity of the uterus which could be extruded only after the walls had resumed their normal condition. When extruded it was easily removed in the ordinary way. In these three cases the hemorrhage went on persistently till the extrusion of the polypus and its removal, so that for some considerable time they all looked as if they would be failures. In one case (1,276) the patient has become a complete neurasthenic, but her tumor and the symptoms arising therefrom are completely cured. It may be that her neurasthenia is the result of the operation, but I know of no indication which justifies this conclusion. With one other exception, this is the only case in which nervous symptoms have supervened to any serious extent since the operation. During the process of the climacteric several of my patients became queer for a short time—that is, they were eccentric and ill-tempered, but nothing was more marked in these respects than we often have in women during the normal change of life; in fact, I should say, on the whole, there has been a good deal less of this among these thirty women than if they had been going through the normal climacteric. A question has recently been raised by Dr. Thomas Keith concerning the occurrence of insanity after grave operations upon the uterus, particularly hysterectomy, and he has made the statement that it occurs in the proportion of 10 per cent. of the cases. This can only be explained as a clerical error or an exceptional result, for it is wholly unsupported by the evidence of anyone else who has written on the subject.. I have operated upon a very much larger number of cases of hysterectomy than Dr. Keith has done, and I know of no case of insanity in my practice. Instances of insanity occur after all surgical proceedings, even the most trivial, and even after the administration of an anæsthetic, without any operation at all.

In the present list of cases one patient alone, so far as I know, has been committed to an asylum, and she is there now (Case 1,453). On reading the report of the case, it is quite clear that the woman was perfectly insane before the operation, and Dr. Marriott Cocke, of Worcester, under whose care she is at the present moment, sees no reason whatever to attribute her insanity to the result of the operation. But even if it were to be so attributed, there are three cases in the list in which, for reasons which must be evident, I cannot indicate, acknowledged insanity of the most pronounced type has been completely cured by the relief of the sufferings involved by the hæmorrhagic myoma; and, in addition to these three cases of pronounced insanity which have been completely, and, so far as we can see, permanently cured, there are a number of cases of striking eccentricities and ill-temper which have been clearly due to the sufferings, and which have been equally reprieved.

It may be in future, when the method of research which I have initiated in this particular operation is extended to others, that a very much enhanced value may be credited to a large number of our surgical proceedings; but, so far as we have gone, I think it would be very difficult indeed to bring forward instances in which it is at all likely that a higher value could be attained by any operation than in the present instance. The operation not only relieves but permanently and completely cures the sufferings of the disease against which it is directed, and I think it must be admitted as one of the most brilliant additions to modern surgery of which we have any knowledge. That there will be a number of cases of myoma for which it will be inapplicable I know already, but when it becomes the uniform practice to submit all cases of myoma requiring treatment to this safe, prompt and effectual measure, and to apply the treatment in the early stages of the disease instead of losing valuable time in measures wholly ineffectual and far more dangerous, the number of cases requiring the more serious operation of hysterectomy will reach an almost vanishing point.

This series of cases also offers very abundant proof that the removal of the ovaries has nothing whatever to do with the question of the arrest of menstruation. Menstruation is a rhythmical process, and therefore clearly governed by a special nerve mechanism. Ovulation, on the contrary, does not seem to be a rhythmical process, but occurs at irregular periods, and probably therefore is no more the result of nerve influence than any other gland function, that is to say, there is probably no special nerve system governing it. In a great many instances where the ovaries have been completely removed menstruation has gone on perfectly regularly for many months, and in the list now submitted there are thirteen cases in which the ovaries were not at all, and five in which only one was removed; yet in sixteen out of the eighteen cases menstruation was immediately arrested, occurring only once in each instance after the operation, and in the other two cases it went on for about five and eight months respectively. In all cases the greatest care has been exercised to remove the Fallopian tubes completely.

I am now of the opinion that it is not so much the removal of the tubes as the destruction of a nerve which lies between the tube and the round ligament of the uterus, which is probably the efferent nerve governing the periodicity of the phenomena of menstruation. The evidence of the whole series is certainly entirely without exception in favor of the view which I have held almost ever since I began to study the question of the Fallopian tube as having more to do with the function of menstruation than the ovaries, that in fact the ovaries have nothing whatever to do with it at all, and the tube has this at least, it is the subject in which the initial phases of the phenomena occur.

[NOTE.—The detailed statement of cases which accompanied this paper is omitted for want of room. It is Mr. Tait's intention to republish this article, together with the cases, in a pamphlet which will shortly be issued.]

Dr. Lawrence considered that the electric treatment should be tried in every case of myoma uteri before any surgical proceeding, if there was no pelvic disease besides the myoma uteri to contraindicate the necessary manipulation. In cases where, after a trial of six to eight applications, the bleeding still continued excessive, or the tumor continued to grow, then he would proceed either to removal of appendages or the uterus itself.

Dr. Bantock had great pleasure in supporting Mr. Lawson Tait in his advocacy of this method of treatment. One point omitted by him was that there seemed to be two forms of myoma, in one of which the operation was of eminent service, the other in which it appeared to be of little use. The first was the hard variety, and the second was the soft. Experience had now taught him to set aside the latter class for absolute removal. One advantage of this operation over the electrolytic treatment was that when the tumor disappeared it did so by an imitation of Nature's process; whereas, in the case of the disappearance of a tumor by the electrical treatment, in the majority of cases the process had been characterized by the most serious symptoms arising from a destructive process of acute degeneration.

Dr. Heywood Smith did not desire to make any remarks on the main subject of Mr. Lawson Tait's paper except to observe that by his brilliant results, not only in the very small mortality, but also in the permanent results, Mr. Tait had established this operation for fibroids. He (Dr. Smith) wished to call attention to what Mr. Tait had said on cases of insanity, and quite thought that it was desirable to appoint a gynæcologist to all lunatic asylums. He wished to refer to a recent case, which he hoped at some future time to relate more in detail and after a long interval had elapsed since the operation. This patient had been under an alienist for more than a year, with, as was said, "intermittent melancholia." These attacks lasted often some months, during which she was wholly unfit to go into society, and though when she came out of them she was a bright lively girl, yet she was in continual apprehension of a recurrent attack. He removed the ovaries in February, since which time she had been perfectly free, and had gone home well.—*British Medical Journal.*

EDITORIAL.

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In the years gone by, the quarterly visitations of the scholarly reviews kept fresh in the minds of the profession all the beautiful and instructive story of the struggles and failures and successes of the master minds, and the work of Harvey, and Sydenham, and Hunter, and all that grand galaxy were as familiar as household words brought in review, keeping the reader in that scholarly atmosphere, in which alone he can ripen into a symmetrical scholarship.

It is the marked characteristic of the times in which we live that all literary work intended to be professional is ruthlessly destructive and hastily constructive in turn, imitating, as it were, what we have learned of the metabolism of our bodies—that healthy construction depends upon the rapid interchange of the new material balanced by the active elimination of the dead matter, the profit being the small increment resulting by the interchange. So our present rapid interchange of literary material secures for the profession that very small margin of scientific truth. Tearing down the old theories in an iconoclastic temper, building hastily temporary refuges for the new, so that new medical literature leaves behind it in only a few months a miserable group of abandoned hovels, which may be compared to the ever changing miners camps of the great West, and out of vast labors the result is the establishment of an occasional permanent settlement.

This is not the temper, though, in which mature scientific literary work is done; its conditions are ripe scholarship, division of labor, abundant material.

It is very clear that there is room just now for a medical review that will do for medical science and literature what such newspapers and journals as *The Nation*, *The Dial* and others are doing for general literature, for in this country and in England there is no review that adequately fills the original form of the *American Journal of the Medical Sciences* and the *British and Foreign Medico-Chirurgical Review*, occupying very clearly as they did and very completely the field of criticism, review and book analysis.

It cannot be claimed that any American medical journal, in its present form, covers the whole field of medical literature. The change of the *American Journal of Medical Sciences* to the form of a monhtly has not been favorable to the literary review department. In the *London Lancet* we get the most elaborate range of literary review, and in the *British Medical Journal* hardly a second place, but even these journals, with their immense circulation and solid establish-

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REMEDIES

FOR

RESPIRATORY AFFECTIONS.

WHAT DO YOU PRESCRIBE IN COUGH MIXTURES?
ARE YOU SATISFIED

Respiratory diseases are always endemic, and, at certain seasons of the year, epidemic. Many a successf patent-medicine man owes his fortune to a happy or unhappy combination of cough remedies and not a sma ortion of the regular physician's practice is made up of prescribing "cough mixtures." How many of tho generally in use accomplish much more than to disturb the digestion or nauseate the patient we leave it to tl experience of all fair-minded physicians to determine. It is certain many of these mixtures are inefficient.

It was but natural therefore, that a wide trial should have been made of modern additions to the mater medica in this troublesome class of affections, and of those proving themselves of value, the following deser special mention, and need only a wider knowledge of their merits to make their use very general.

A few facts regarding these drugs, which were introduced by us, may interest those desiring to empl them, and we will be pleased to send those desiring more complete information working bulletins ful descriptive of their history and botanical origin, habitat, preparations, and therapeutic application, containi clinical reports from private and hospital practice.

NARAGAMIA ALATA AND COCILLANA. Among new drugs recently investigated the two promise to be very satisfactory additions to the materia medica.

The evidence thus far obtained from clinical experience would indicate that these remedies are likely prove important expectorants and respiratory stimulants. In the spasmodic cough of acute bronchitis, in tl acking cough of phthisis, and wherever there is marked interference with the respiratory function throu ccumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient.

GRINDELIA ROBUSTA is indigenous to California. Of it we make the following preparatio
Fluid extract of leaves and flowering tops; dose, ½ to 1 fluidrachm (2 to 4 C.c.).
Solid extract, dose, 5 to 18 grains (.33 to 1.1 grm.).
Elixir grindelia robusta; each fluidounce represents [illegible] drachms of grindelia robusta; dose 2 to 4 fluidrach to 15 C.c.).
Pil. extract grindelia robusta, 3 grains, sugar- or gelatin-coated; dose, 1 to 4 pills.

QUEBRACHO is an Argentinian drug The bark contains the active medicinal principle. The m eligible form for its administration is the fluid extract. In spasmodic asthma it has often brought about spee relief from the paroxysms.

MYRTUS CHEKAN is an evergreen shrub indigenous to the central provinces of Chili. O eparation of Chekan is a fluid extract made by maintaining the drug in a seventy-five per cent. alcoh menstruum and submitting it to hydraulic pressure. The dose is one to three fluidrachms.

YERBA SANTA is found throughout California and on the Pacific coast. The leaves are the p used. We supply the following preparations of the drug.
Fluid extract of the leaf; dose, ¼ to 1 fluidrachm (1 to 4 C.c.).
Fluid yerba santa aromatic, for making syrup yerba santa aromatic; dose, 15 to 60 minims (1 to 4 C.c.).
Solid extract; dose, 3 to 12 grains (.2 to .8 grm.)
Syrup yerba santa comp.; dose, 1 to 4 fluidrachms (4 to 16 C.c.).
Glycerole yerbine comp.; dose, 1 to 3 fluidrachms (4 to 12 C.c.).
Glycerole yerba santa; dose, 1 to 2 fluidrachms (4 to 8 C.c.).
Lozenges yerba santa comp.; dose, 1 to 2 every three hours.
Pil. yerba santa ext., 3 grs.; dose, 1 to 2
Yerba santa with malt extract; dose, 2 to 4 fluidrachms (8 to 16 C.c.).

Not the least valuable of the properties of this drug—and it is widely used for its demulcent and exp torant qualities is its power to disguise the taste of quinine. In the form of syrup it is now regarded as t best vehicle for this purpose.

LIPPIA MEXICANA is a creeping evergreen shrub. Its habitat is Southern Mexico. The pa used medicinally are the leaves and stalks

The tincture of Lippia Mexicana appears to be the pharmaceutical preparation best adapted to produce t full therapeutic effect of the drug. To judge from the analytical results, it contains all the desirable const uents as nearly as possible in the proportions in which they are associated in the fresh drug. The tincture given in the dose of half a drachm to one drachm, repeated every three or four hours, according to t requirements of the case.

Among formulæ we manufacture, we may also mention **ANODYNE PINE EXPECTORAN** and **BRONCHIAL SEDATIVE** preparations which are agreeably tasting and combine expectora and respiratory sedatives already well known to the medical profession.

PARKE, DAVIS & CO.,
DETROIT AND NEW YOR

ment in the good opinions of the reading medical public, give but subordinate attention to that branch of their work.

In this country the old *American Journal of Medical Sciences* is still the best, although it is but little ahead of the *New York Medical Journal.* The *American Practitioner*, in its monthly form, as far as it went was the peer of any of the journals in its review department, and the *American Lancet* holds a very similar position to that old favorite. Most of the other American journals are striving to become weekly in the larger centres, the impression being that it gives evidence of a more successful career to attain to the dignity of a weekly issue. Every remove which has been made, however, from the old medical quarterlies has been a wider departure from the maturer and more elegant form of medical literature. It must be admitted here that the majority of readers want me[illegible] a book notice of a few lines, to indicate to them the sco[illegible] volume, and the editor's opinion as to the value it will be to the hurried doctor. The result has been that most notices are mere advertisements of books which are given in exchange to the publishers, and are utterly valueless except to catch the eye of the reader, possibly enabling him to judge by the title and the fame of the author whether or not that is what he wants.

Perhaps it is not desirable to return to the old form of the medical reviews, for possibly their failure was due to their growing unpopularity with the reading public, and lack of success financially, but as we believe the time has come that there should be an American review devoted entirely to criticism, probably it would be better to return to the monthly form of publication, similar to that of The Dial and The Literary World.

It should not be under the influence of any publishing house, it should not limit itself to books by any publisher or in any language. Books not sent for review ought to be purchased, and it would be better to buy each book in open market, although the latter suggestion may be superfluous.

With such an ideal review before the public who would be the readers? That would be the question which would have to be answered before the expensive work would begin, unless we might find a few men of the proper capacity who had faith in the literary tastes and accomplishments of a sufficient number to sustain the venture.

The *Nation*, which is by far the best exponent of all that is good and pure in literature of the papers published in this country, lingered for many years with a subscription that would have disheartened any but the bravest managers. *Index Medicus*, the most remarkable literary venture in any profession, is supported by a list of subscribers so small that it barely covers expenses. With these indications of the literary tastes of the general public, one would not enter into the business of producing a medical review without understanding in the very outset that his readers would be a very small and select class. But this brings us back to the original statement, that we need a thoroughly medical review, one that will attract all classes of the profession, especially those young men who are coming into the profession with the meagerest knowledge of a past literature.

What are the cultivated medical men of wealth and leisure in America doing that they cannot adopt the above suggestion, and gain for this country the honor of leading the literary world ?

SKETCH AND PORTRAIT OF DR. JOHN MCDONALD.—We hope to have a sketch of the life of Dr. John McDonald, with a steel portrait by Mr. J. J. Cade, the celebrated engraver of Brooklyn, in our January or February JOURNAL.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about One Hundred and Eighty Dollars, will be made on July 14, 1891. Essays intended for competition may be upon any subject in Medicine, and must be received by the Secretary of the College on or before May 1, 1891.

CHARLES W. DULLES, Secretary.

REVIEWS AND BOOK NOTICES.

THE SCIENCE AND ART OF OBSTETRICS. By Theophilus Parvin, M.D., LL.D. Second Edition, Revised and Englarged. Illustrated with 239 Wood-cuts and a Colored Plate. Philadelphia: Lea Brothers & Co., 1890.

The first edition of Parvin's Obstetrics was received with marked favor as a practical guide to the science and art of obstetrics, fully up to the latest and best advances of the day, and written in highly attractive and scholarly English. An examination of the present edition shows most thorough and conscientious revision, the entire volume, apparently, having been thoroughly winnowed under the keen eye and skilful hand of one who, with the ability to present his subject, fully informed as to the best work done by others, and carefully studying the needs of the students and practitioners.

Being the most ancient of all medical arts, obstetrics has its very early records, extending into a period when all of the other branches of medicine were in their very rudiments, from the quaint old writings of that early day came words of wisdom that show how good were the observations of the earliest practitioners and how little we have to add to the fundamentals of that early day. Our author has enhanced the interest of his work very largely by his judicious interspersion of historical items, keeping his readers *en rapport* with the old and the new, escaping entirely the semblance of pedantry. The intercalation of historical matter, to save space, has been printed in smaller type than the body of the pages, evidently not because of its subordinate position to the rest of the text. It is well it is so, for the average student seems to think it none of his concern to inform himself about what the ancient masters of the art did, seemingly despising the very foundation of our knowleddge, and it is a strong commendation of the work that out of the ripeness of his scholarship the author gives us these admirable digests, fit settings for his elegant text. Pursuing the plan of reducing extracts and digests from other authors to smaller type, as on page 443–'44, much space has been given for the additions, and without increasing the bulk he has added materially to the amount of the text.

Antisepsis in labor is much more pronounced in this edition, and where the author formerly used a 3 per cent. solution of carbolic acid for washing the genitalia of the paturient woman and a 3–5 per cent. for the hands of the physician and nurse, he now uses a mixture of 1 to 2 p. c. of creolin in water for the woman, and a 2 p. c. mixture of creolin for the hands and arms of the obstetrician, its advantage being that it is so emollient that no ointment or oil are necessary. Instead of the iodoform salve he used formerly for instruments, he uses a 2 p. c. mixture of creolin, after placing them in hot water. The employment of antiseptic pads is an innovation since the first edition, which we find adequately described.

Since the first edition axis traction has advanced in favor by the added experience of obstetricians, and the whole subject has been revised, Breus', Stephenson's and Knox's devices being described and figured; to this has been added the very practical suggestion by Poullet, of Lyons, the employment of tapes applied to the ordinary forceps to procure axis traction.

It seems now to be a fixed principle in obstetrics, and no obstetric bag is complete without some form of the device attachable to the ordinary forceps, either the bar with handles, or the hook of Stephenson.

Few books will repay the reviewer by a careful comparison of [illegible] as this one does, and if sometimes he would wish that the index were more complete, for instance, so that by inspecting it he might find "mercury, bichloride," or some other index reference, to learn what the author has to say about its antiseptic employment, and is driven to search for it under some other head; he could even then say that the index was better than in most books of the day.

In spite of cyclopœdias of obstetrics, which have the combined opinion of many writers, our preference is for the book which gives the vigor and personal teaching of a ripe scholar and safe practitioner.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. Witthaus, A.M., M.D. Third Edition. New York: William Wood & Co., 1890.

No work of our acquaintance has made such a material evolution in its third edition as this. The change in the orthography of certain words, such as *chlorin*, *chlorids*, agreeing with suggestions made at the last meeting of the American Association for the Advancement of Science, before the Section on Chemistry, will strike some readers as a bold and proper advance, but it is insignificant compared with the addition of timely and well-digested material, which the student in chemistry has been obliged to search out from many sources. The medical student, the sanitarian and the busy doctor will find, in comprehensible shape, all that is necessary for daily use, arranged in a convenient way for ready reference.

The chemistry of the carbon compounds which has become so very practical since the discovery of the numerous anilin derivatives, adding immensely and advantageously to our remedies, to our laboratory reagents, to our helps in microscopic technology, make it a matter of the highest importance that a work like the present should include all such compounds, and the principles of derivation, as will elucidate the practical problems upon which physicians, sanitarians and others have to be informed. Heretofore volumes of similar scope have considered the chemistry of carbon compounds as too difficult to state in serviceable shape for the student of general chemistry, but our author has done a good work in making the simplest and clearest statement of the present state of so much of the subject as appertains to practical concerns of his readers, which will only appear difficult in some places to the medical student who neglected physics and chemistry in his academical course.

The sanitarian (and all physicians are esteemed as oracles in this department of human learning) who will turn to the subject of "Water" will see how, in a few pages, the author has expressed all the principles involved in the sources and composition of pure water, and the nature of impurities and some simple laboratory methods for their detection.

The criticism we would make as to the arrangement of material is that urinary analysis is scattered through the book, albuminous urine treated under a general head of albuminoids, the estimation of sugar and urea under the general head of "glucoses" and "diamids," and nowhere in the index does the word urine occur as a title. The index is deficient in many words contained in the text, such as phenyl-hydrazin, and, by the way, no mention is made of this substance as a test for sugar.

Undoubtedly this work on chemistry fills an important place, and future editions will make it the ideal for the medical student. The shape of the volume and the typography are all improvements on previous editions.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M.D. Seventh Edition, Thoroughly Revised, with 51 Illustrations. Philadelphia: Lea Brothers & Co., 1890.

If the reader will take the pains to compare the fifth and the present editions of this work, he will be struck by the faithful revision to which it has been subjected, increasing the present volume by sixty-four pages. It is in the section on infant food and artificial feeding we would expect to note the greatest change in an American work, as we believe the greatest study of the subject has been done in this country, and so we find it; the author has most thoroughly brought out the state of scientific progress in this direction.

Under the head of Malformations have been grouped all such congenital defects as acrania, incomplete brain, meningocele, and all the herniæ of the brain, spina bifida, malformations of the heart and cyanosis, to which is added caput succedaneum and cephalæmatoma.

Purulent ophthalmia of the new-born, always a subject of absorbing interest to the general practitioner, is treated with the dignity it deserves. Prophylactic measures on the part of the mother are introduced for the prevention of the disease, and in the discussion of therapeutical measures he reminds us that it was the great Gross who introduced bichloride of mercury as a remedy in ophthalmia neonatorum, and that long before the so-called specific gonococcus of this disease was known.

In speaking of tetanus neonatorum the author takes a very conservative view, giving little or no credence to some of the fanciful explanations of the causation, as that of Sims in depression of the occipital bone, or of that quite plausible, but unproven, theory of disease of the umbilicus, as a causative element, but inclines to the belief that it is due to a specific microbe, and he thinks that the belief of some writers, that filthiness is a potent causative factor, is quite compatible with the microbic theory. At any rate, this form of trismus is more common among negroes, and is therefore a disease of warm climates, and the race being filthy and ignorant, the microbian theory is plausible from this standpoint. Of late years, though, Southern physicians, who see so much of trismus, are not given to such gloomy prognoses as formerly, their main stay being hydrate of chloral and bromide of potassium. The city of Wilmington can show a very good record of recoveries.

The article on Vaccination, one of the most important ones in the book, is very sparingly revised, including in this revision only a paragraph of eleven lines, stating that there is to-day some doubt raised about the transmutation of variolous lymph into vaccinia, by its passage through the heifer, whereas this theory is not at all new, but merely the reiteration of a theory set forth, among others, by Dr. George Gregory, as early as 1843.

Time and space do not permit further comments upon this volume. Although its merits have not at all been sufficiently set forth, we simply commend it to all those readers who have heretofore found it useful, and to the later friends who possess themselves of this last and thoroughly revised edition.

DECOMPOSITION OF CHLOROFORM IN GASLIGHT.—It has long been known that the administration of chloroform in gaslighted rooms causes decomposition of the chloroform vapour, and that the persons present suffer from irritation of the respiratory passages, with coughing, sneezing and lachrymation. Professor Kunkel (*Therap. Monatshefte*) introduced chloroform vapor into a glass chamber in which a gas was burning, and then drew off the products and analyzed them. As a result he found that the chloroform was chiefly decomposed into hydrochloric and carbonic acids, a small quantity of free chlorine being also present. As one-tenth per 1,000 of hydrochloric acid in air is sufficient to cause severe respiratory irritation, it is evident that this amount can be produced by comparatively little chloroform. Kunkel explains that irritating effects are comparatively infrequent, owing to the moisture in the air absorbing the free hydrochloric acid and combining with it. Cloths or sheets dipped in a solution of washing soda, and hung up in the operating room, will absorb any hydrochloric acid or chlorine, and thus obviate their unpleasant effects.—*Supplement to the Brit. Med. Jour.*

READING NOTICES.

Epilepsy.—In a case of epilepsy of several years duration I am happy to say that Peacock's Bromides did the work well; also prescribed it in cases of headaches and nervousness, and was successful in relieving both. In eighteen years practice I have not had such satisfactory results as from Peacock's Bromides.

Montezuma, Ohio. J. McBrowder, M.D.

Character of Commendations.—The subject of uterine disease reminds me that during the past six months I have had my attention drawn to a remedy which goes under the name of Dioviburnia, the formula of which is given by the proprietors, it being composed of equal parts of the fluid extracts of viburnum prunifolium, viburnum opulus, dioscorea villosa, aletris farinosa, helonias dioica, mitchella repens, caulophyllum thalictroides, scutellaria lateriflora (each fluid ounce contains ¾ drachm each of the fluid extract).

The proper dose is, for adults, from a dessert to a tablespoonful three times daily after meals.

In urgent cases, with much pain, it should be given every hour or two in a half glass of *hot water.* I am free to say that, with the exception of the "black haw" (a most valuable remedy), I was not familiar with the component parts of the Dioviburnia, but having read the very emphatic endorsement by Drs. J. B. Johnson and L. Ch. Boisliniere, of (St. Louis, two of the most eminent professors and practitioners of) the city, as well as that of Dr. H. Tuholske, I was induced to give the compound a fair and thorough trial, and I am convinced that in Dioviburnia we have a valuable addition to our armamentarium in our battle against the enemies of the noblest work of God—Woman.

Medical Review Editorial, August 25, 1888.

NC Med J (os) 26:355, #6, Dec 1890.

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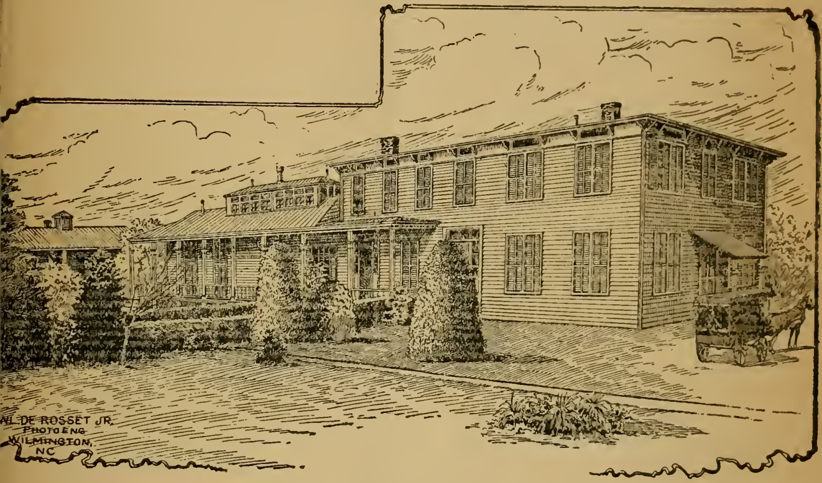
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Eight new wards have been added to the building for private patients, and the Hospital is now opened for the reception of those who need special surgical and medical service, affording to the counties around Wilmington as good advantages as can be obtained elsewhere, and at moderate expense.

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"PARATOLOID" — KOCH'S ANNOUNCEMENT OF HIS DISCOVERY OF AN ANTI-TUBERCULOUS FLUID.

The newspapers have been so full of Koch's discovery that it became old news before it was possible for monthly medical journals to enquire into the subject. The *Medical News*, with commendable liberality, gave the medical public a translation from the *Deutsche Medicinische Wochenschrift* on the 15th November of Dr. Koch's article on "*A Cure for Tuberculosis*," which appeared in Berlin on the 14th. Such a universal stirring of the public mind has never been witnessed before on any medical topic. The most dignified and conservative newspapers joined in with their sensational neighbors in giving expression to their gratification, and, as *The Nation* says: "For even if the Koch discovery be only half as successful as it now promises to be, it opens up a field of possible remedy for some of the more serious human ills the importance of which it would be difficult to exaggerate. * * * So that we may fairly expect the next ten years to be the most faithful in the annals of medicine." "Bacteriology seems now * * * to raise the bottle once more high above the knife."

The most significant sign of the confidence in Dr. Koch's announcement of his discovery was the flocking of medical men of all nationalities to Berlin, to observe in person what the real success of the inoculation with *paratoloid* is. America has not been behind in this spirit of enquiry, and from many medical colleges have gone anxious representatives to learn the uttermost of the matter. Doubtless we will get the truth in time, and with all respect to Dr. Koch and his German confréres when the discovery has filtered through an American brain we will find out its true value.

We presume that "paratoloid" is a provisional name, for it seems to have little in it to suggest any theory of the nature of the substance, and it will not be easy to construct from it such terms as will be in harmony with words already in use for similar prophylactic inoculations. As awkward a word as it is, it avoids the confusion incident to the misuse of the word vaccination, as applied to inoculations other than those of cow-pox lymph.

So far as we can learn paratoloid is made only by Dr. Koch, and that the supply is very inadequate, and until other means are used to increase the supply, we need not in this country expect it to be in the hands of the general profession in some months. Dr. Koch promises to make known the nature of the inoculating fluid, but has taken the wise precaution not to let it get beyond his control until he can be assured that there will be some certainty of a uniformity in its production.

We must infer that the lymph is partly, at least, of animal fluid or a ptomaine, as it does not keep when diluted with distilled water.

The inoculating fluid is administered by hypodermic injection with a syringe specially designed by Dr. Koch, but Yankee invention will have a proper syringe by the time the supply of paratoloid is procurable, and we predict it will be an ordinary hypodermic syringe with asbestos packing.

The amount of material for an inoculation is very small, and the site of the inoculation preferred between the shoulders or on the buttocks. Singularly a guinea pig will withstand 15,000 times more of the fluid than a man. The inoculations must begin with small quantities, which can be increased as tolerance is acquired.

As all will understand, it is too early to infer whether these inoculations are really curative, as it has been only about three months since it was first known, but we are warned by our own experience of "cures," as well as by the statement of Dr. Koch, that the remedy can only be expected to be of the greatest service to those patients in the early stages of the disease.

We are safe in concluding that we have in this discovery of Koch something very remarkable, even if it does not do all that in the sanguine hour of novelty we hope it will. Koch has always been honest, and has shown his competency as a great researcher, and if we will confine ourselves to what he has to tell us about it, we will be safe. It is natural for his ardent admirers to claim more than he does for his discovery, and it is from just such men that we expect contradictory reports and unsafe advice. We can afford to await patiently another month until we hear from the practical American bacteriologists who by this time are already in Berlin at the seat of action.

In our Januray issue we expect to give some more definite account of the whole subject, but with the best knowledge we can get we must expect to learn and unlearn a good many things before all the truth is ready for our use as general practitioners.

The temptation to make the most out of the present advantages of secrecy is indulged in by the few Berlin doctors who have access to the secret preparation, and enormous sums are being made daily by Dr. Levy and others, as we learn from the metropolitan journals. All the correspondents agree in the opinion that the true spirit of a generous and liberal profession is lacking in the management of the great discovery, the tendency being to place the whole matter in the hands of the government, which means a monopoly. If such is the illiberal spirit it will be in disparaging contrast to the discoveries which have emanated from England and America. The London *Lancet* says:

"It is idle to speculate upon the possible outcome of these remarkable researches. At present it is our duty to accept the statements which, coming from so trustworthy a source, can neither be lightly regarded nor inconsiderately dismissed. The profession throughout the world is prepared to test their accuracy, and would gladly welcome the practical fulfilment of the expectations that have been aroused by them. It is satisfactory to know that they will be thoroughly tested by competent and judicious clinical observers. We do not pretend to forecast their verdict, which to so many must be a matter of the greatest moment. In the interest of humanity, however, it is above all things needful that no exaggerated estimate be formed of the powers of the method, and that the utmost care be taken in the selection of cases for treatment, whilst at the same time there should be no abandonment of the recognized rules of our art in placing the victims of tuberculous disease in conditions favorable to their recovery. In a few weeks we may hope to see the experiments on the method carried on upon a scale which will enable a definite conclusion to be formed."

The *British Medical Journal* says:

"The moment has not yet come either for detailed criticism or for complete acceptance, but no greater homage could by any possibility have been paid to the genius of a great scientific worker than that which has taken practical shape during the last week in the headlong rush to Berlin of medical men of all nations, most of them experts in the study and treatment of tuberculosis. They are all, or nearly all, actuated by a feeling of confidence in the scientific value of Koch's discovery, although little or nothing is yet known as to the real nature of the discovery itself. The medical world has learnt to believe that any work carried out under the auspices of Professor Koch is thorough and genuine, and that any announcement made by Koch himself may be received without the customary grain of salt which is usually meted out to qualify the enthusiasm of the ordinary discoverer. The publication of Dr. Koch's preliminary paper has created a sensation which is by no means limited to medical circles. The statement that phthisis is curable by means of an injection of a "brownish transparent liquid" under the skin of a consumptive patient has been taken up and repeated by lay and medical society alike, and the reservations and cautions which acoompany that important statement in Dr. Koch's communication are being left entirely out of sight."

EXPERTISM AGAIN ALLUDED TO.—In the article in the November JOURNAL on EXPERTISM we carefully avoided personalities, because there was no occasion and there was no desire to do so. More than one subscriber and friend has made it to apply to individuals, whereas the writer had no one in his mind as he wrote except perhaps his own case. The subject was ventilated mainly in order to warn the profession against allowing lawyers to force us into the attitude of experts, not really on their part to get expert opinions, but to get opinions enough at variance with each other, if possible, to enable them to construct an argument to the jury that would muddle their brains. To such lengths has the profession gone of making "the worse appear the better cause," that, for the sake of money, men will belittle a witness as a necessary act in the drama of justice they are playing, and, after the play is over, entrust the lives of their wives and children to them. We repeat, let us not allow the lawyers to force us into the attitude of experts on all occasions.—T. F. W.

FELLOWS' HYPO-PHOS-PHITES.

(Syr: Hypophos: Comp: Fellows)

Contains **The Essential Elements** to the Animal Organization —Potash and lime.

The **Oxydizing Agents**—Iron and Manganese;

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And the **Vitalizing Constituent**—Phosphorus,

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It Differs in Effect from all others, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

It has Sustained a High Reputation in America and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

Its Curative Properties are largely attributable to stimulant, Tonic and Nutritive qualities, whereby the various organic functions are recruited.

In Cases where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

Its action is Prompt; stimulating the appetite and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

The Prescribed Dose produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of MENTAL AND NERVOUS AFFECTIONS.

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

PREPARED BY

JAMES I. FELLOWS, Chemist,

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There is no food preparation that compares with it in nutritive properties.

It is partially prepared for assimilation, and, therefore, makes less demand upon the digestive powers of the gastric juice.

Being in the form of a dry powder and *sterilized*, it will keep in any climate. It contains 95 *per cent* of nutritious matter.

The use of BEEF PEPTONOIDS is indicated as follows:

Convalescence from all diseases, Pulmonary Affections, Pneumonia, Phthisis; Dyspepsia, Gastritis, and all Stomach Ailments; Fevers, Diarrhœa, Dysentery and all Intestinal Diseases; Marasmus, Bright's Disease, Diabetes, and Excessive Use of Alcoholic Stimulants. BEEF PEPTONOIDS may be given per rectum in all cases where the stomach cannot digest food, and in Debility resulting from any cause.

PEPTONOIDS LIQUID.

This preparation represents BEEF PEPTONOIDS in the form of an elegant cordial, all constituents being entirely digested and ready for assimilation.

LIQUID PEPTONOIDS is a nourishing peptogenic liquid stimulant with the albuminoids in a soluble state with only sufficient spirits added to preserve it. It contains the largest amount of albuminoid principles and the least amount of alcohol that is possible to use and make a stable compound.

LIQUID PEPTONOIDS will keep indefinitely; its flavor and palatability are such that many who have taken it liken it to a delicate cordial. It will readily be taken by patients who are unable to injest food in any other form (in these cases it has been found of the greatest service). In convalescence from fever and other diseases, in loss of appetite, weak digestion and gastritis its effects are positive, and it will never fail to give perfect satisfaction.

There is no preparation in the market that has been recommended so highly by physicians who have carefully tested it.

DOSE.—For an adult, one tablespoonful three times to six times a day; children in proportion.

PHOSPHO-CAFFEIN COMP.

(GRANULAR EFFERVESCING.)

A SEDATIVE NERVE AND BRAIN FOOD.

The most efficient and palatable preparation in **Nervous and Sick Headache, Neuralgia, Insomnia, Neurasthenia, and General Nervous Irritability.**

Each dessertpoonful contains :—
- Caffein.
- Acidi Phosphorici, $\overline{\text{aa}}$ grains, ss.
- Antipyrin.
- Ext. Apii. Grav. Dulc. (Celery) $\overline{\text{aa}}$ grain j.
- Sodium Bromide, grains v.

DOSE.—One or two heaping teaspoonfuls in a half tumbler of water.
Put up in 4 oz. and 8 oz. Bottles

THE ARLINGTON CHEMICAL COMPANY,

(Successors to REED & CARNRICK for the above preparations,)

Yonkers, N. Y.